**HEATHROW NCP PROPERTY LIMITED**
**APRIROSE NCP FLIGHTPATH**
**HEATHROW**
**A4 BATH ROAD, WEST DRAYTON**

# TRANSPORT ASSESSMENT

**JULY 2022**

the journey is the reward

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# A4 BATH ROAD, WEST DRAYTON

## TRANSPORT ASSESSMENT

## JULY 2022

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**Heathrow NCP Property Limited**
**Aprirose NCP Flightpath Heathrow**
**A4 Bath Road, West Drayton**
**Transport Assessment**

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## Appendices

# 1 Introduction

1.1 Mayer Brown Limited has been commissioned by Heathrow NCP Property Limited to prepare this Transport Assessment in respect of a proposed demolition of existing car park and redevelopment for industrial (Use Class B2); storage or distribution (Use Class B8); and/or light industrial (Use Class E(g)(iii)) purposes, with ancillary office space, landscaping, car parking, servicing and access arrangements.

1.2 The site is located just north of the A4 Bath Road and to the east of Sipson Way and provides long term car parking. The location of the site in context of the local and regional highway network is illustrated in **Figure 1.1 and 1.2** appended hereto.

1.3 The proposals seek to provide direct vehicular access from the site onto the A4 Bath Road in the form of a simple left-in / left-out junction, a concept which has been secured with a number of previous planning applications.

## Planning History

1.4 In 2002, an application for a left-in / left-out junction at the site was submitted (reference 41632/APP/2002/147), which subsequently proceeded to planning appeal (reference APP/R5510/A03/1125/426). The proposed changes to the access achieved planning consent at the appeal with full support from the Local Planning Authority and the Planning Inspectorate. Statutory objections were received from Transport for London (TfL) which were dismissed by the Inspector.

1.5 Despite achieving planning consent, the A4 Bath Road access was not implemented, and the planning permission lapsed.

1.6 Consequently, in 2010 an application was submitted to renew the permission for the access onto the A4 Bath Road (application reference 41632/APP/2010/2301). This application was approved on the 4th February 2011, however the access was again not implemented and so the permission lapsed in 2014.

1.7 More recently, a pre-planning advice application was made in 2018 (reference 41632/4/PRC/2018/249), in relation to a new vehicular access for the NCP car park identical to that previously submitted in 2010 that received planning consent.

1.8 Similarly, to the previous applications which ultimately gained consent, TfL have rejected the proposals. In a letter dated 24th September 2018, they outlined their transport related concerns, which were fully addressed in a Mayer Brown Transport Statement dated 26th May 2021, which was submitted with the planning application (reference 41632/4/APP/2021/1301). This application was subsequently approved and the Transport Statement relating to this, which addressed TfL's concerns, is contained in **Appendix A**.

## Pre-Application Consultation

1.9 The current proposal has been subject to pre-application consultation with London Borough of Hillingdon (LBH). Under the heading of Highways in their response dated 22nd December 2021, LBH have requested that the Transport Assessment be provided alongside the forthcoming planning application and that it should include existing and proposed trip generation and how parking provision reflects current standards. LBH have also requested that the TA includes and Active Travel Zone Assessment (ATZ) and shows how the proposed development supports Vision Zero and the Healthy Streets approach.

1.10 This TA is therefore structured as follows:

- Transport Planning Policy;
- Site Location & Existing Conditions;
- Development Proposals;
- Trip Generation Assessment; and
- Summary and Conclusions.

# 2 Transport Planning Policy

2.1 This section examines transport policies and seeks to demonstrate that the proposed development accords with the relevant objectives. Consideration is given to national, regional and local guidance.

## National Planning Policy Framework (NPPF)

2.2 National planning policy for England is set out within the National Planning Policy Framework (NPPF), which was formally adopted in March 2012, and most recently updated in July 2021. The NPPF sets out the government's planning policies and how it is expected they will be applied, providing a framework from which councils can produce their own planning guidance.

2.3 The NPPF supersedes the former Planning Policy Guidance (PPG) and Planning Policy Statements (PPS) to provide one simplified, concise, and consolidated policy document.

2.4 The NPPF focuses on the need to achieve sustainable development within the three dimensions of economic, social, and environmental. Clear support is provided for a number of sustainable transport policies, including supporting sustainable development, reducing the need to travel, and promoting sustainable transport that can be used instead of a car.

2.5 The Framework recommends that *"significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes"* as *"this can help reduce congestion and emissions, and improve air quality and public health" (NPPF, page 31, paragraph 105)*. For all development proposals, *"opportunities to promote sustainable transport"* should be taken advantage of, based on the type of development and its location *(NPPF, page 33, paragraph 110)*.

2.6 NPPF paragraph 112 states that development should:

2.7 *" a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

*b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

*c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

*d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

*e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.*

2.8 This report will demonstrate that the proposed development has been designed to accommodate servicing and deliveries, supports the movement of pedestrians and cyclists and will incorporate facilities for charging electric vehicles. The site is well located for access to sustainable transport options and for access to local amenities, reducing the need for vehicle use at the site.

2.9 Finally:

*"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposals can be assessed."*

*(NPPF, page 34, paragraph 113).*

2.10 A draft travel plan will be submitted alongside this transport assessment.

### Regional and Local Policy Documents

*The London Plan (March 2021)*

2.11 The London Plan is the overall strategic plan for London, and forms part of the development plan for London boroughs. In March 2021, the new London Plan was published.

2.12 Chapter 10 relates specifically to transport, focusing on reducing the need to travel, improving the capacity and accessibility of public transport, walking and cycling, and supporting measures that encourage shifts to more sustainable modes.

2.13 Policy T1 (Strategic approach to transport) states:

*"All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated".*

2.14 The site has a high level of connectivity internally and facilitates pedestrian travel to local bus stops, making public transport accessible.

2.15 Policy T2 (Healthy Streets) states:

*"Development Plans should promote and demonstrate the application of the Mayor's Healthy Streets Approach to: improve health and reduce health inequalities; reduce car dominance, ownership and use, road danger, severance, vehicle emissions and noise; increase walking, cycling and public transport use; improve street safety, comfort, convenience and amenity; and support these outcomes through sensitively designed freight facilities."*

2.16 The development will provide a connection to existing pedestrian and cycle routes in the area, as well as adjacent bus stops. The proposals include a low vehicle parking ratio with respect to standards to minimise car dominance and encourage sustainable travel.

2.17 Policy T5 (Cycling) states that developments should provide appropriate levels of cycle parking which should be fit for purpose, secure and well-located, in accordance with minimum standards. Details of the relevant cycle parking standards are set out in Section 4 of this Transport Assessment and the compliance of the proposed development in relation to the standards is assessed.

*London Borough of Hillingdon Local Plan January 2020*

2.18 The LBH Local Plan was adopted in January 2020 and sets out Borough-wide planning policies, site allocations and land designations.

2.19 Policy DTM1: Managing Transport Impacts states that *"Development proposals will be required to meet the transport needs of the development and address its transport impacts in a sustainable manner. In order for developments to be acceptable they are required to:*

*"i) be accessible by public transport, walking and cycling either from the catchment area that it is likely to draw its employees, customers or visitors from and/or the services and facilities necessary to support the development;*

*ii) maximise safe, convenient and inclusive accessibility to, and from within developments for pedestrians, cyclists and public transport users;*

*iii) provide equal access for all people, including inclusive access for disabled people;*

*iv) adequately address delivery, servicing and drop-off requirements; and*

*v) have no significant adverse transport or associated air quality and noise impacts on the local and wider environment, particularly on the strategic road network."*

2.20 Section 3 of this Transport Assessment will demonstrate that the proposed development will be readily accessible by public transport and active travel modes. Details of the provision of cycle storage facilities will be provided in Chapter Four.

### Transport Planning Policy in Relation to Proposed Development

2.21 National, regional, and local planning policy has been consulted in relation to the proposals described in this assessment.

2.22 This assessment ensures the development proposals are compliant with NPPF, The London Plan, and the Bromley Local Plan (2019), namely:

- The potential impact of the proposed development has been assessed in terms of multi-modal trip generation, providing estimations of how many trips will be added to or removed from the local transport network;
- Use of a Travel Plan will encourage the use of sustainable modes of transport and minimise the traffic impact of the development;
- Public transport services have been identified for the benefit of future residents, as well as accessible destinations suitable for employment, retail, leisure etc., and consideration of future services; and
- Local pedestrian and cycle routes have been identified for the benefit of future residents and to encourage active travel to and from the site.

# 3 Site Location and Existing Conditions

3.1 The application site is an NCP operated car park for Heathrow Airport travellers, located immediately north of the A4 Bath Road, east of Sipson Lane and northwest of where the M4 spur passes under the A4 Bath Road in West Drayton.

## Existing Access and Adjacent Highway

3.2 The primary access to the site is currently via a narrow, single way working bridge over the M4 spur road. This is accessed via a service road that runs adjacent to the western side of the Park Inn Radisson Hotel. Access to the Radisson Hotel is gained from the Sipson Road / A4 Bath Road / Nene Road/ M4 Spur signal junction and a priority junction on the A408 Sipson Road.

3.3 A secondary access for emergency vehicle use only is located on the western boundary of the site onto Sipson Way.

3.4 The A4 Bath Road is a primary route into London and also serves as a major distributor to London's Heathrow Airport. Adjacent to the site, the Bath Road is a dual carriageway with a central reserve. Across the site frontage in an eastbound direction there is a combined bus, cycle and taxi lane as well as a single traffic lane. Westbound across the site frontage there are two all traffic lanes. Adjacent to the eastbound carriageway a segregated 3.5-metre-wide footway and 2.2-metre-wide cycleway is also provided.

3.5 Street lighting is provided on this section of Bath Road and the carriageway is subject to a 50-mph speed limit. The A4 has been designated a Red Route Clearway, with no stopping allowed in this area.

3.6 Approximately 50 metres prior to the signal junction of the Bath Road with Sipson Road, the eastbound bus/cycle/taxi lane ends and three lanes are provided at the stop line. These comprise a dedicated right turn lane to Nene Road, a dedicated ahead lane to Bath Road and a combined ahead and left turn to Bath Road and Sipson Road. Adjacent to the western arm of Bath Road at this junction is the M4 spur off-slip which comprises two lanes.

3.7 The Sipson Road arm of this signal junction comprises a single all movements lane, while the eastern Bath Road arm comprises a dedicated right turn lane, a dedicated ahead lane and a combined ahead and left turn lane. Nene Road, the southern arm of this junction comprises three lanes, a left turn, right turn and ahead lane. Bath Road and Nene Road arms feature dedicated cycle waiting boxes at the traffic lights.

3.8 Sipson Way bordering the west of the site serves primarily residential units and is subject to a 30mph speed limit. Sipson Way is a controlled-parking zone between 8am and 10pm on all days and parking along the majority results in sections working as a single lane. The carriageway and footway are subject to regular street lighting.

3.9 Visibility to the west for drivers exiting Sipson Way is in excess of 2.4m x 160m.

*Accident Data*

3.10 Accident statistics have been obtained from Transport for London covering the section of Bath Road immediately adjacent to the site and Sipson Way for the 3-year period before January 2022.

3.11 As shown in **Figure 2.1**, only 6 incidents were recorded, and the analysis found a very low severity of collisions, with only one incident being recorded as serious (blue dots), the rest as slight (green dots). There were no accidents recorded at the junction of Simpson Way and the A4 or along the site frontage of Bath Road. The full TfL output is included in **Appendix B**.

3.12 Three accidents were recorded on Bath Road on approach to its signal junction with Sipson Road and Nene Road. Two accidents were recorded as slight with the other serious. The serious accident involved a single motorcyclist and was due to loss of control.

3.13 In the study area, only one accident involved a pedestrian and this was at the junction of Sipson Way and Sipson Road and was recorded as slight.

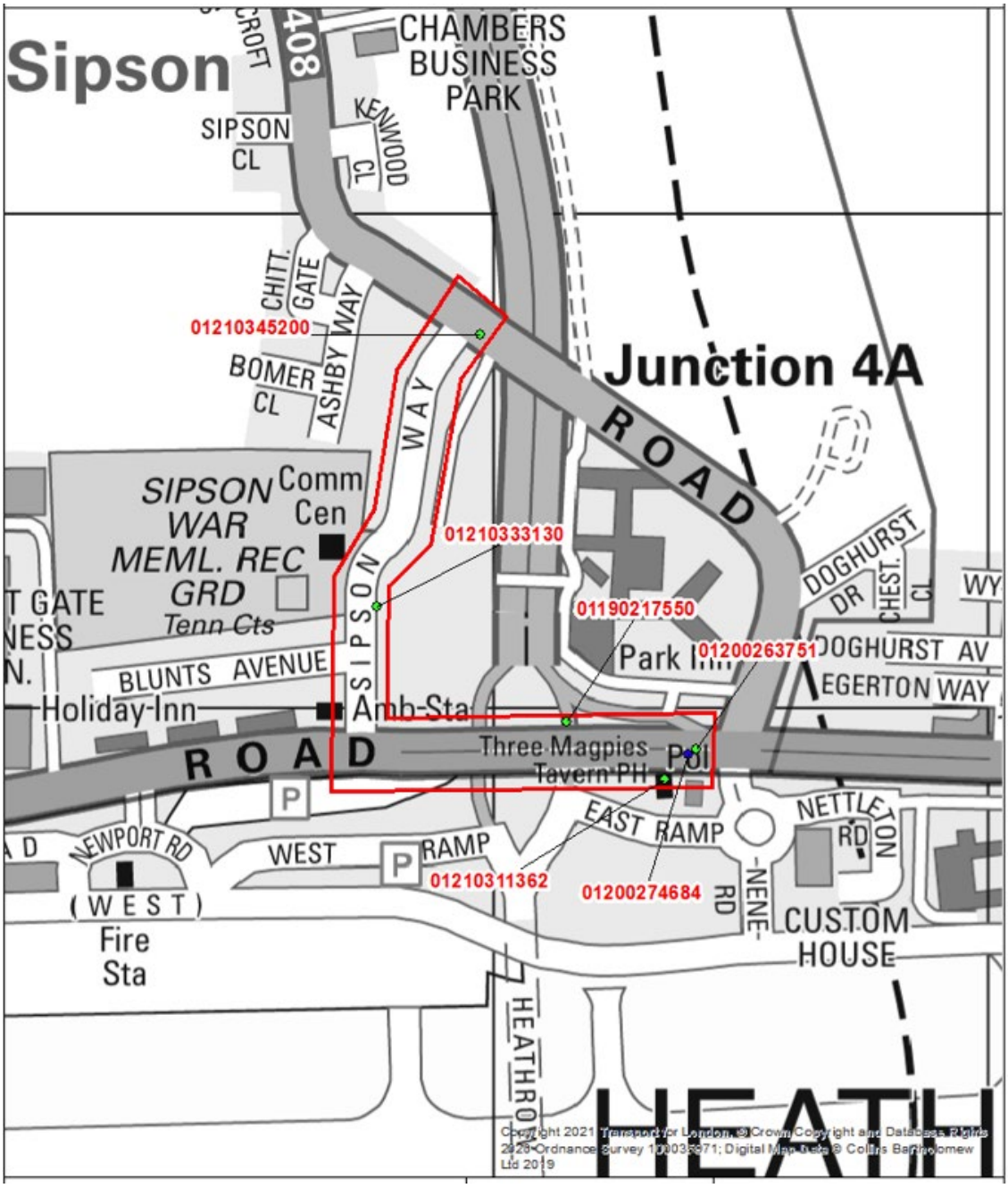



**Figure 2.1: Location and Severity of Collisions**

3.14 The development proposals are unlikely to materially affect the level of accidents recorded on the local highway network, with further detail on traffic impacts is provided in Section 5 of this TA.

## Active Travel Zone (ATZ) Assessment

3.15 This section sets out an ATZ Assessment, which has been used to inform a Healthy Streets Assessment (HAS) as set out later in this section of the report.

3.16 An ATZ assessment requires identification of high priority active travel destination groups around the development site, which includes the nearest bus stop, rail station and town centre. The linking routes are then identified along with any KSIs (road accidents with severity of killed or seriously injured).

3.17 To support TfL's Vision Zero approach, changes should then be considered to make an area safer for the clusters of KSIs (meaning one or more 'Killed' and/or two or more 'Seriously Injured') along key routes that have been identified in the ATZ assessment.

3.18 The ATZ assessment for pedestrians is considered in the text below. This is a reduced form compared to a full 'map version' ATZ assessment, however, conveys the key information about the local pedestrian infrastructure and identifies any areas of substandard infrastructure.

3.19 The cycle network is accessed from adjacent to the site on Bath Road and so an ATZ assessment for cyclists is not considered necessary.

### *Local Pedestrian Infrastructure*

3.20 The application site benefits from connection to the adjacent pedestrian infrastructure, on Bath Road, which features footways of good width on both sides of the carriageway and regularly spaced street lighting.

3.21 Bath Road features an uncontrolled crossing facility approximately 50m west of the site access and a controlled crossing approximately 280m east of the site access. Both benefit from dropped kerbs and tactile paving.

3.22 Pedestrian accessibility to the bus network from the site is achievable from bus stops on Bath Road.

3.23 In line with the ATZ assessment, a qualitative desktop route audit of footway and crossing provision between the site and key destinations of the nearest public transport stops (Bath Road), nearest public transport stations (West Drayton) and the nearest town centre (West Drayton) has been carried out with the findings set out in **Tables 2.1 to 2.4** respectively.

3.24 Additionally, as required by the ATZ assessment guidelines, KSIs have been taken from Crashmap data for the three-year period up to July 2021 with **Tables 2.1 to 2.4** only including KSIs that involved a pedestrian or a cyclist.

| Road | Link | Footway Provision | Crossing Provision | Other Facilities & Features | KSIs |
|---|---|---|---|---|---|
| Bath Road | South edge of site to Sipson Way Blunts Avenue Bus Stop | Wide paved footway in adequate condition with street lighting. | N/A | Trees, bollards | 0 |

**Table 2.1: ATZ Assessment – Site to Bath Road Eastbound Bus Stop**

| Road | Link | Footway Provision | Crossing Provision | Other Facilities & Features | KSIs |
|---|---|---|---|---|---|
| Bath Road | South edge of site to Bath Road crossing | Wide paved footway in adequate condition on north side of Bath Road with street lighting present. | Dropped kerbs and tactile paving in good condition at controlled crossing at junction (north side) | Trees, barrier between footway and carriageway, bridge | 0 |
| Bath Road | North side of Bath Road to south side of Bath Road | Standard width paved footways in adequate condition on north and south side of Bath Road as well as crossing island with street lighting present. | Dropped kerbs and tactile paving in good condition at Bath Road crossing (south side) | Trees, railing separating pedestrians from road at crossing point | 1 |
| Bath Road | Bath Road crossing to Sipson Road (Stop BP) bus stop | Wide paved / bricked footway in adequate condition on south side of Bath Road with street lighting present | Dropped kerbs | Bus stop shelter and seating, public house | 0 |

**Table 2.2: ATZ Assessment – Site to Bath Road Westbound Bus Stop**

| Road | Link | Footway Provision | Crossing Provision | Other Facilities & Features | KSIs |
|---|---|---|---|---|---|
| Bath Road | Southern edge of site to corner of Bath Road and Sipson Way | Paved footway of adequate width in good condition with street lighting. | N/A | Trees | 0 |
| Sipson Way | Bath Road to Sipson Road | Standard width tarmac footway in adequate condition with street lighting | Dropped kerbs and tactile paving in poor condition at end of Sipson Road | Sipson Recreation Ground provides alternative route and places to stop and rest | 0 |
| Sipson Road | Sipson Way to Ashby Way crossing | Standard width tarmac footway in good condition | Dropped kerbs with tactile paving at Ashby Way in adequate condition | Tree lined verges, bus stops with shelters | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Sipson Road | Ashby Way to Chitterfield Gate crossing | Standard width tarmac footway in good condition | Dropped kerbs with tactile paving in poor condition | Trees in verge, active frontages | 0 |
| Sipson Road | Chitterfield Gate to Sipson Close crossing | Wide tarmac footway in adequate condition with street lighting | Dropped kerbs and tactile paving in adequate condition | Active frontages | 0 |
| Sipson Road | Sipson Close to Hollycroft Gardens crossing | Standard width tarmac footway in adequate condition | Dropped kerbs but no tactile paving | Art on wall at restaurant, shops, active frontages | 0 |
| Sipson Road | Hollycroft Gardens to Hollycroft Close crossing | Standard width tarmac footway in adequate condition | Dropped kerbs but no tactile paving | Trees in verge, active frontages | 0 |
| Sipson Road | Hollycroft Close to Harmondsworth Lane crossing | Standard width tarmac footway in adequate condition with street lighting | Zebra crossing with tactile paving and dropped kerbs in adequate condition at mini roundabout to cross over Sipson Road | Church building, pub | 0 |
| Sipson Road | Harmondsworth Lane to Russell Gardens crossing | Narrow to standard width tarmac footway in adequate condition with street lighting | Dropped kerbs but no tactile paving | None | 0 |
| Sipson Road | Sipson Road to industrial site access crossing | Standard width tarmac footway in adequate condition with street lighting | Dropped kerbs, no tactile paving | None | 0 |
| Sipson Road | Industrial site to Holiday Inn crossing | Standard width tarmac footway in adequate condition with street lighting | Zebra crossing with dropped kerbs and tactile paving in good condition | Pub with outside seating, bus stop and shelter | 0 |
| Sipson Road | Holiday Inn to Holloway Lane roundabout crossing | Standard width tarmac footway in adequate condition with street lighting | Dropped kerbs with tactile paving in poor condition. Pedestrian island | None | 0 |
| Sipson Road | Holloway Lane roundabout to CCH site crossing | Standard width tarmac footway in poor condition with street lighting | Dropped kerbs in poor condition, no tactile paving | None | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Sipson Road | CCH site to CCH site crossing | Standard width footway in poor condition with street lighting | Dropped kerbs, no tactile paving | None | 0 |
| Sipson Road | CCH site to Sipson Road crossing via underpass | Standard width tarmac footway in adequate condition becoming poor to adequate paving from school with street lighting present | Dropped kerbs. Tactile paving present on eastern side of Sipson Road crossing | School, trees, wide verge, seating opposite school | 0 |
| Sipson Road | Sipson Road to Keats Way crossing | Standard width paved footway in poor to adequate condition with street lighting | Dropped kerbs, no tactile paving | Tree lines verges on both sides of road | 0 |
| Sipson Road | Keats Way to Maxwell Road crossing | Standard width paved footway in poor to adequate condition with street lighting. | Dropped kerbs and tactile paving in adequate condition | Trees | 0 |
| Sipson Road | Maxwell Road to Harmondsworth Road crossing | Standard width to wide footway in adequate condition with street lighting. Large stretches of this section are paved in poor to adequate condition. | Dropped kerbs and tactile paving in adequate condition. Controlled crossing with pedestrian island present | Trees, bus stop with shelter, local shops | 0 |
| Station Road | Harmondsworth Road to Constabulary Close crossing | Standard width tarmac footway in adequate condition with street lighting | Dropped kerbs and tactile paving in good condition | Trees | 0 |
| Station Road | Constabulary Close to Church Road crossing | Wide tarmac footway in good condition with street lighting | Dropped kerbs and tactile paving in good condition. Pedestrian island present | Trees, adjacent park, bus stop shelter. | 1 |
| Station Road | Church Road to Drayton Gardens crossing | Wide tarmac footway in adequate condition with street lighting | Dropped kerbs, no tactile paving | Trees | 1 |
| Station Road | Drayton Gardens to Swan Road crossing | Wide tarmac footway in good condition with street lighting. This section is partly paved towards Swan Road. | Dropped kerbs and tactile paving in good condition. Pedestrian island present | Trees, flower beds, seating, town centre shops | 0 |

**Table 2.3: Site to West Drayton Town Centre**

| Road | Link | Footway Provision | Crossing Provision | Other Facilities & Features | KSIs |
|---|---|---|---|---|---|
| Site to West Drayton Town Centre – See Table 2.3 | | | | | |
| Station Road | Swan Road to Station Road crossing | Wide, paved footway in good condition with street lighting | Controlled crossing with dropped kerbs and tactile paving in good condition | Town centre shops | 0 |
| Station Road | Station Road to Cherry Orchard crossing | Wide, paved footway in good condition with street lighting | Dropped kerbs and tactile paving in good condition | Town centre shops, bus stop and shelter | 0 |
| Station Road | Cherry Orchard to Warwick Road | Wide, paved footway in good condition with street lighting | N/A | Town centre shops | 0 |
| Warwick Road | Warwick Road to Warwick Road crossing | Standard width paved footway in adequate condition with street lighting | Dropped kerbs and tactile paving in adequate condition | Town centre shops | 0 |
| Warwick Road | Warwick Road to West Drayton Station | Standard width footway in adequate condition | N/A | Town centre shops, trees, seating | 0 |

**Table 2.4: Site to West Drayton Rail Station**

### ATZ Assessment Summary

3.25 Based on 2022 desktop observations, **Tables 2.1 to 2.4** show that there is generally good pedestrian infrastructure between the site and the key destinations considered in the audit. The footways are generally tarmac surfaced and in adequate condition with paved footways around Cherry Lane Primary School, local shopping areas and West Drayton town centre, which vary in quality. However, footway surfacing and the upkeep of existing crossing infrastructure is considered a highway maintenance issue rather than a deficiency in pedestrian infrastructure.

3.26 In the audit, a number of side road crossing points along the routes considered have dropped kerbs but are missing tactile paving. These areas are identified below.

*Site to Bath Road Bus Stops*

3.27 Between the site and the Bath Road bus stops, the footways are generally in adequate condition with controlled pedestrian crossing facilities in adequate condition at the Bath Road crossing providing access to the westbound bus stop.

*Site to West Drayton Rail Station*

3.28 Between the site and West Drayton town centre, the audit has identified deficiencies in crossing provision at the following locations:

- No tactile paving at Sipson Road / Hollycroft Gardens junction;
- No tactile paving at Sipson Road / Hollycroft Close junction;
- The absence of tactile paving at Sipson Road / Russell Gardens junction;
- No tactile paving at industrial site access onto Sipson Road;
- The absence of tactile paving at CCH site accesses onto Sipson Road;
- No tactile paving at Sipson Road / Keats Way junction; and
- No tactile paving at the Station Road / Drayton Gardens junction.

*Site to West Drayton Rail Station*

3.29 The site to West Drayton rail station follows the same route as the site to West Drayton town and so the same summary applies. The audit did not identify any pedestrian infrastructure deficiencies between the town centre and rail station.

*KSI Assessment*

3.30 Only three KSIs involving a pedestrian have been recorded on the audit routes in the past 3 years, with no two occurring on the same route section. Therefore, no changes are required to the existing transport network to make the area safer to support TfL's Vision Zero approach.

### Healthy Streets Assessment

3.31 The Healthy Streets approach puts people, and their health, at the heart of decision making. This results in a healthier, more inclusive city where people choose to walk, cycle, and use public transport. The 10 Healthy Streets Indicators are illustrated in **Figure 2.1**.


**Figure 2.1: Healthy Streets Indicators**

3.32 The TA will set out the estimated number of pedestrian and public transport movements associated with the development. Given the proximity of the nearest bus stops and rail station, it is likely that these public transport movements will be start and end on foot.

3.33 The above pedestrian ATZ assessment considers the level of infrastructure between the site and the key destinations of the nearest bus stops on Bath Road, North Drayton town centre and North Drayton rail station.

3.34 The assessment of the pedestrian routes to key destinations has been considered in light of the seven Healthy Streets indicators that are considered relevant to the TA, as set out in **Table 2.5.**

| Indicator | | Bus Stop | Rail Station | Town Centre |
|---|---|---|---|---|
| People choose to walk, cycle and use public transport | A successful transport system enables more people to walk and cycle more often | Nearest bus stop located conveniently adjacent to site | The ATZ assessment shows that the nearest rail station (West Drayton) can be accessed on foot. | The ATZ assessment shows that the nearest town centre (West Drayton) can be accessed on foot. |
| People feel safe | The whole community should feel comfortable and safe on our streets at all times. People should not feel worried about road danger | Zero KSIs recorded between site and bus stops on Bath Road | No more than one KSI has been recorded in any one location along the route considered. | No more than one KSI has been recorded in any one location along the route considered. |

| | | | | |
|---|---|---|---|---|
| Easy to cross | Making streets easier to cross is important to encourage more walking and to connect communities | Eastbound bus stop requires no crossing. Westbound bus stop benefits from controlled crossing with dropped kerbs and tactile paving. | All crossing points feature dropped kerbs although some are missing tactile paving with controlled or zebra crossings provided on main roads. | All crossing points feature dropped kerbs although some are missing tactile paving with controlled or zebra crossings provided on main roads. |
| Places to stop and rest | A lack of resting places can limit mobility for certain groups of people | Both bus stops feature seating and are near the site. | Places to rest are limited but there are benches present in Sipson Recreation Ground and in Drayton Hall Park. | Places to rest are limited but there are benches present in Sipson Recreation Ground and in Drayton Hall Park. |
| Shade and shelter | Providing shade and shelter enables everybody to use our streets, whatever the weather | Both bus stops feature shelter and are near the site. | Shade is provided by mature tree cover along the route in summer months. | Shade is provided by mature tree cover along the route in summer months. |
| People feel relaxed | More people will walk or cycle if our streets are not dominated by motor traffic, and if pavements and cycle paths are not overcrowded, dirty or in disrepair | The nature of the A4 Bath Road is that it serves as a primary traffic route. However, the stops are close to the site, the footways are of adequate quality and there is a controlled crossing to access the westbound bus stop. | The footways are predominantly in residential areas where traffic would not be moving too quickly. There is also street lighting present for the entirety of the route and the presence of wide tree lined verges in some place given the feeling of openness. However, some footway paving is cracked and doesn't appear particularly clean. | The footways are predominantly in residential areas where traffic would not be moving too quickly. There is also street lighting present for the entirety of the route and the presence of wide tree lined verges in some place given the feeling of openness. However, some footway paving is cracked and doesn't appear particularly clean. |
| Things to see and do | People are more likely to use our streets when their journey is interesting and stimulating, with attractive views, buildings, planting and street art | The nearby airport may provide some visual interest. | Grass verges and tree-lined streets contribute to a pleasant environment, and some active frontages offer some visual interest | Grass verges and tree-lined streets contribute to a pleasant environment, and some active frontages offer some visual interest. |

**Table 2.5: Healthy Streets Assessment**

3.35 The ATZ and HSA have identified that the pedestrian route to West Drayton would benefit from the provision of tactile paving at some side road crossings, where this is absent. There are also locations where footway surfacing and existing tactile paving is in poor condition but this is considered a road maintenance issue.

### Cycle Infrastructure

3.36 In the vicinity of the site, there is a shared cycleway/footway on both sides of Bath Road, linking to the wider Heathrow cycle network. There is also on-carriageway provision for cyclists on the northern side of Bath Road. This can be used to connect to off-carriageway cycleways around 50m to the west and around 350m to the east of the site access

3.37 Heathrow benefits from a network of on and off-carriageway cycle routes that provides transit for cyclists to surrounding urban centres. Heathrow Airport provide a cycle map that outlines this on their website. This is shown in **Figure 2.2**.

3.38 Heathrow cycle hub is located approximately 800m east of the site along Bath Road. Membership to this is free and members benefit from free cycling advice, access to a workshop as well as discounts on cycling products.

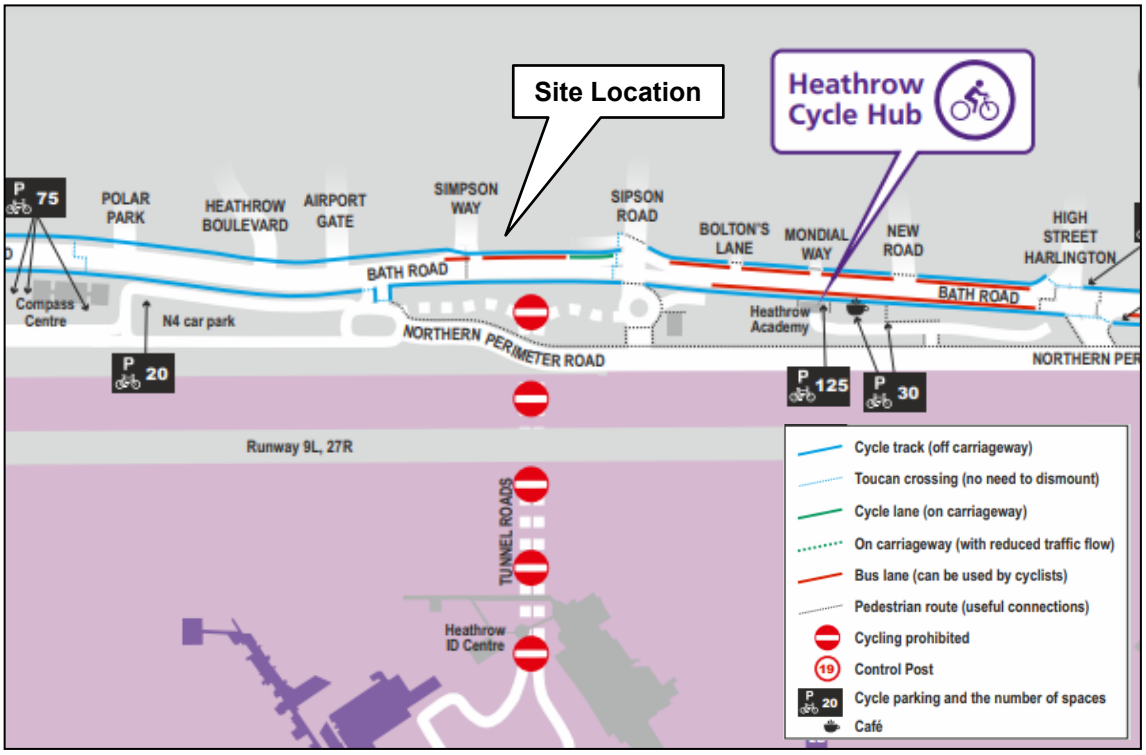



**Figure 2.2: Local Cycle Routes Linking Directly to the Site**

[Source: heathrow.com]

3.39 **Figure 2.3** shows the wider cycle network with both Sipson Way and Sipson Road on Local Cycleway 89, which is an on-road route that connects Bath Road with West Drayton and Uxbridge.

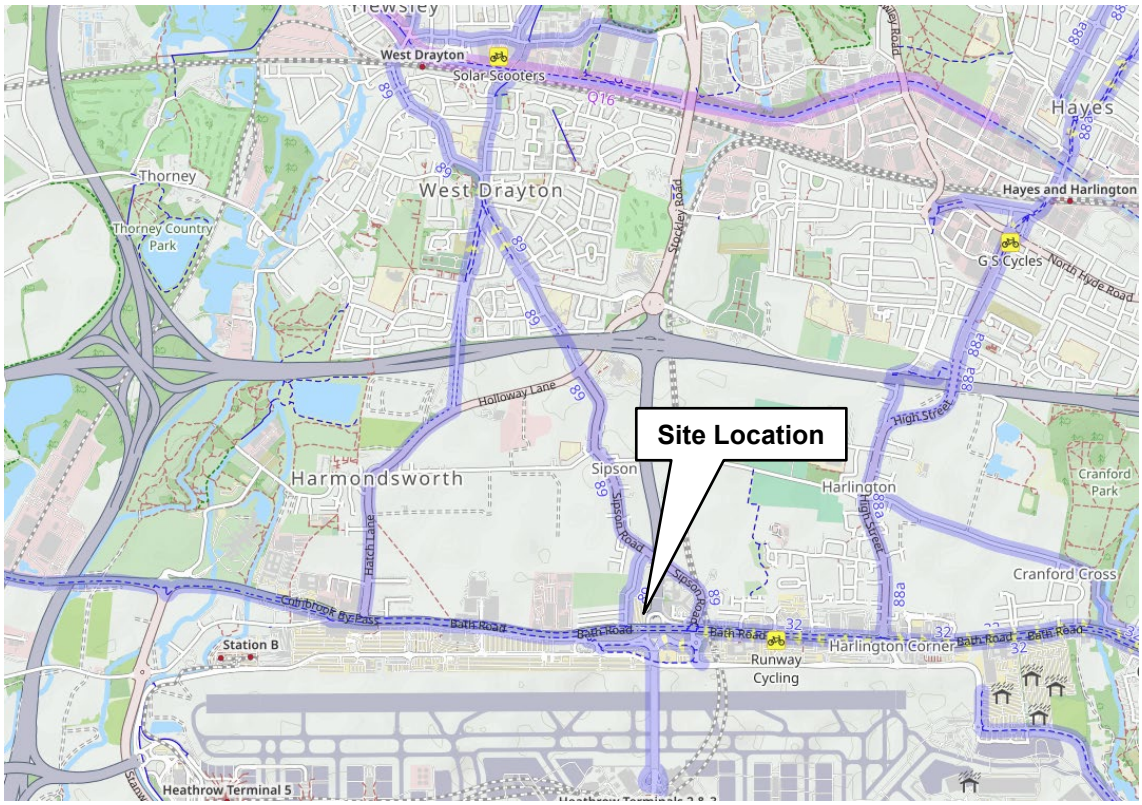


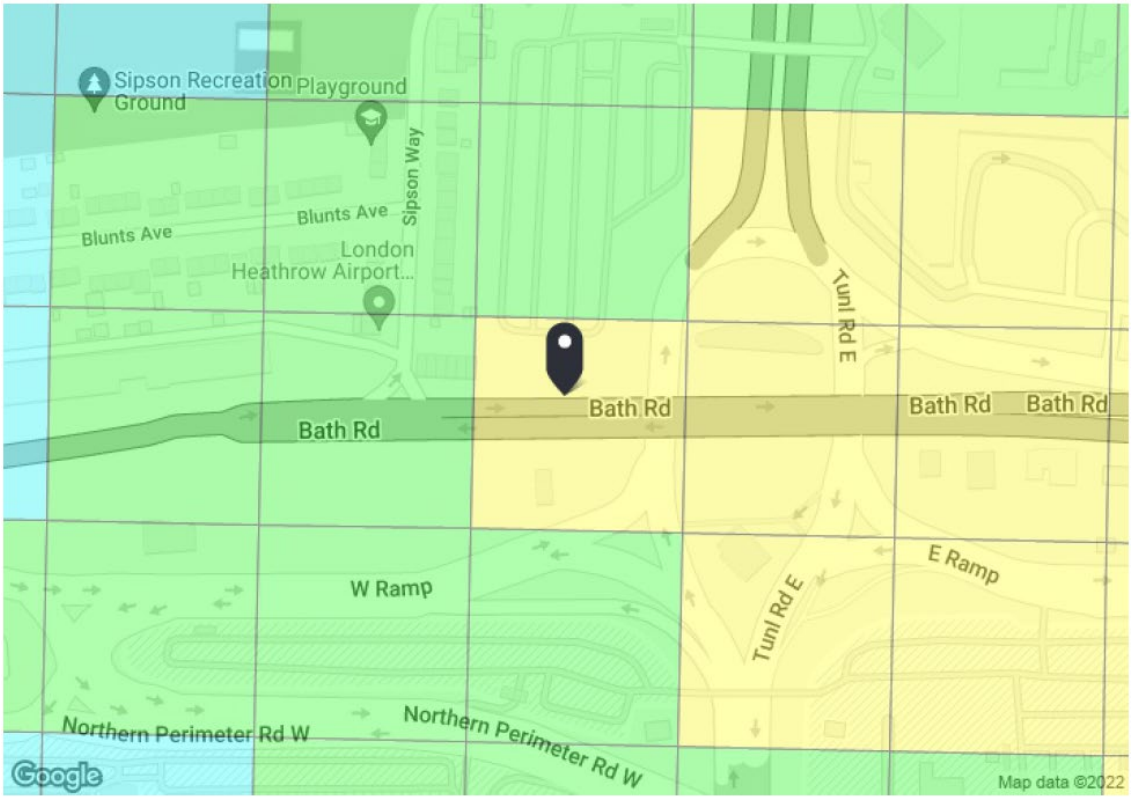

**Figure 2.3: Cycle Routes**

## Local Public Transport Infrastructure

*Public Transport Accessibility (PTAL)*

3.40 Transport for London (TfL) publish borough wide PTAL mapping for reference by Local Planning Authorities and developers to aid strategic planning. This model utilises an accessibility range between 1a (low) and 6b (high), which is calculated from a formula based on the number of bus stops and railway stations ("points of interest") located within pre-defined walking thresholds. For bus stops, this threshold lies 640m from the site (an eight-minute walk, assuming a comfortable 80m/min walking pace), and 960m (12-minute walk) for rail stations.

3.41 The application site has a PTAL rating of 3 to 4, as shown in **Figure 2.4**.




PTAL output for Base Year
4

**Figure 2.4: PTAL Rating**

*Bus Services*

3.42 The nearest bus stop to the site is the 'Sipson Way Blunts Avenue' bus stop on Bath Road, providing eastbound services. The bus stop is located approximately 30m east of the site access. The bus stop benefits from seating, timetable and shelter provision and is served by TfL bus services 81, 105, 111, 278, 285, and 423.

3.43 Additional bus stops are located on along Bath Road, approximately 200m from the site. The 'Sipson Road Stop BP' bus stop provides westbound services on Bath Road. Using the pedestrian crossing facilities at the Bath Road / Sipson Road / Nene Road signal junction, this bus stop is around 400m from the site and is served by TfL bus services 81 and 423.

3.44 Both the eastbound and westbound bus stops have a bus shelter and seating.

3.45 **Table 2.6** provides a summary of the bus services available within the vicinity of the site.

| Service | Route | Average Bus Frequency | | |
|---|---|---|---|---|
| | | Mon-Fri | Sat | Sun |
| 81 | Slough Town Centre – Hounslow | Every 12 minutes | - | - |
| 105 | Heathrow Central Bus Station – Greenford Station | Every 11 minutes | Every 12 minutes | Every 12 minutes |
| 111 | Heathrow Central Bus Station – Kingston | Every 9 minutes | Every 10 minutes | Every 11 minutes |
| 278 | Heathrow Central Bus Station – Ruislip | Every 13 minutes | Every 15 minutes | Every 20 minutes |
| 285 | Heathrow Central Bus Station – Kingston | Every 11 minutes | Every 11 minutes | Every 11 minutes |
| 423 | Hounslow Bus Station – Heathrow Terminal 5 | Every 20 minutes | Every 20 minutes | Every 30 minutes |

**Table 2.6: Bus Service Frequency**

3.46 **Table 2.6** shows that the site is well located for access to convenient and frequent bus services to various London locations such as Hounslow, Greenford, Kingston, Ruislip and Heathrow Airport.

*Rail Services*

3.47 West Drayton rail station is located approximately 3.7km to the north of the site and provides services to London Paddington, Reading and Didcot Parkway. Both Great Western Rail (GWR) and The Elizabeth Line operate from West Drayton Station with GWR operating the Didcot Parkway Trains, and The Elizabeth Line serving the Reading Service. Both services operate trains to London Paddington.

3.48 A summary of the typical services from West Drayton rail station is shown in **Table 2.7**. Services operate in the opposite direction and at the same frequencies.

| Route | Weekday Peak Hour Train Frequency | | Weekend Peak Hour Train Frequency | |
|---|---|---|---|---|
| | AM | PM | Saturday | Sunday |
| West Drayton – London Paddington | 7 | 7 | 4 | 2 |
| West Drayton - Reading | 7 | 4 | 4 | 2 |
| West Drayton – Didcot Parkway | 5 | 4 | 3 | 3 |

**Table 2.7: Services from West Drayton Rail Station**

3.49 West Drayton station is also accessible from the site via a 14-minute cycle journey along Local Cycleway 89. From here there are services available to Heathrow, London Paddington, Reading, and Didcot Parkway.

## Summary

3.50 This section demonstrates that the site is accessible by walking and cycling, with a good range of bus services within a short walk of the site to and from Hounslow, Greenford, Kingston, Ruislip and Heathrow Airport and destinations in between with 6 regular bus services stopping outside the site.

3.51 West Drayton rail station is also accessible from the site, particularly by bicycle.

3.52 Therefore, there are good opportunities for staff to access the site by means other than the private car.

# 4 Development Proposals

4.1 The development proposals are for proposed demolition of the existing NCP car park and redevelopment for industrial (Use Class B2); storage or distribution (Use Class B8); and/or light industrial (Use Class E(g)(iii)) purposes, with ancillary office space, landscaping, car parking, servicing and access arrangements.

4.2 This section provides a transport planning review of the development proposals subdivided into the following headings.

### Proposed Schedule of Accommodation

4.3 The proposed development seeks to build four industrial units with a total Gross Internal Area (GIA) of 8,362 sqm Gross External Area (GEA) of 8,767 sqm. Table 5.1 provides a breakdown of the unit floor areas.

| Unit | Proposed GIA / GEA (sqm) |
|---|---|
| Unit 110 | 1,772 / 1,883 |
| Unit 120 | 2,256 / 2,345 |
| Unit 130 | 2,725 / 2,831 |
| Unit 140 | 1,609 / 1,708 |
| **Total** | **8,362 / 8,767** |

**Table 5.1: Proposed Unit GIAs**

4.4 The proposed site layout is illustrated in **Figure 5.1.**


**Figure 5.1: Proposed Site Layout**

## Vehicular Access Arrangement

4.5 Access to the site will be via a left-in left-out access at the south of the site onto Bath Road. The access will have footway provision on both sides of the access.

4.6 This junction has the same geometry as was approved under planning application 41632/4/APP/2021/1301. The approved junction is shown in **Figure 5.2** includes dropped kerbs and tactile paving at the bellmouth and was designed to accommodate HGV movements.

4.7 The approved proposals also include extending the 40mph speed limit on the A4 up to Sipson Way. Currently, this section of the A4 Bath Road is subject to a 50mph speed restriction until approximately 50m before the Bath Road / Sipson Road / Nene Road Junction, where the speed restriction becomes 40mph.

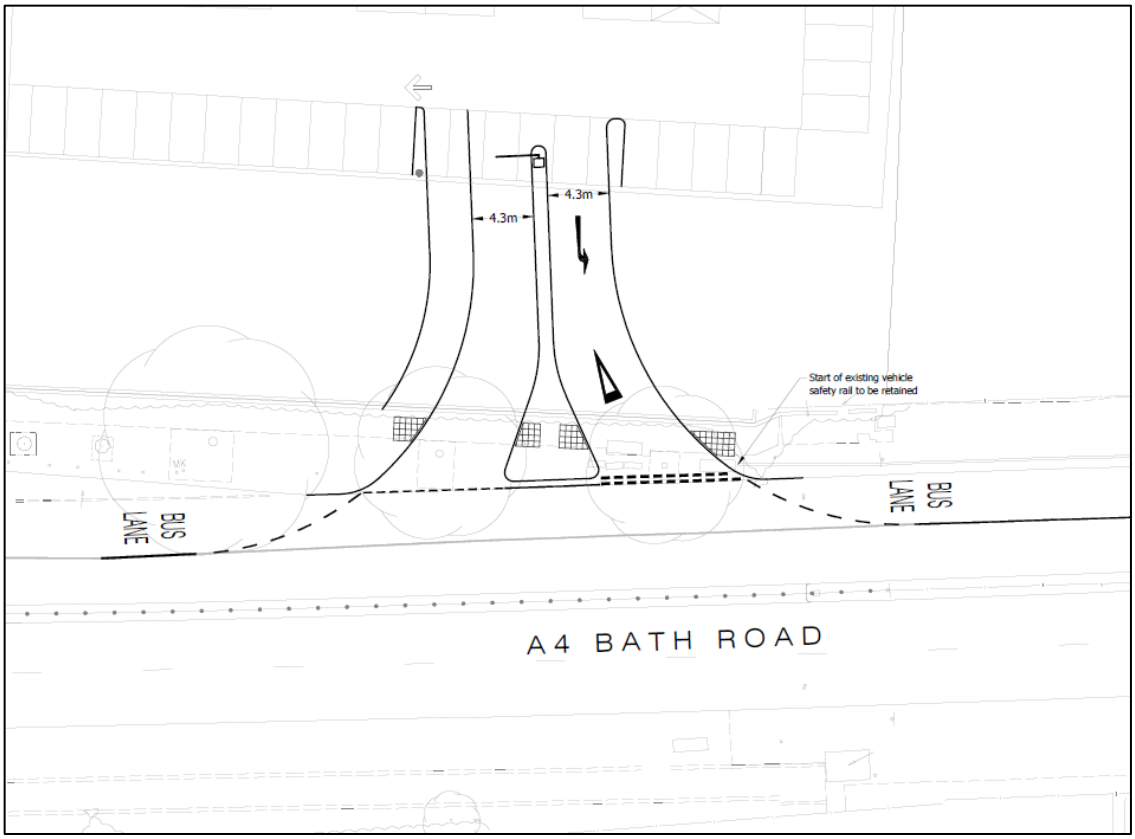



**Figure 5.2: Approved Access Design**

4.8 The existing access point to the site from the bridge over the M4 spur road will be closed. The bridge itself is adopted highway and therefore responsibility for its maintenance will remain with the Highway Authority.

*Internal Highway Layout*

4.9 The new junction will lead into a 7.3m wide access road to serve the industrial units. Gates within the site will be set back so that HGV's can pull up clear of the footway on Bath Road.

4.10 The internal access road runs alongside the eastern boundary of the site and will provide access to each unit along with cycle parking and car parking within the site.

## Operational Details

4.11 The development is proposed to operate for 24 hours a day, 7 days a week. The end users of the industrial units are currently unknown.

## Parking Provision

### *Car Parking*

4.12 Car parking it to be provided alongside each unit and in the southwest corner of the site with 91 car parking spaces provided in total. This includes 9 disabled persons spaces and 10 spaces for Electric Vehicle (EV) charging.

4.13 Hillingdon Council maximum car parking standards are 1 space per 50 to 100sqm GEA for E(g)(iii) use (identified as B1 in the standards), 2 spaces plus 1 space per 50 to 100sqm GEA for B2 and B8 uses. This equates to a range of 88 to 175 spaces for E(g)(iii) and a range of 90 to 177 spaces for B2 and B8, based on a GEA of 8,767 sqm.

4.14 The proposed provision of 91 car parking spaces falls within these ranges and therefore meets current car parking standards for the proposed uses.

4.15 The Hillingdon Local Plan requires 10% of car parking spaces for commercial development to be for Blue Badge holders and so the disabled persons parking provision meets this requirement.

### *Cycle Parking*

4.16 The development proposals include a cycle parking area in the southeast corner of the site for ease of access to the existing cycle network on Bath Road.

4.17 40 long stay cycle parking spaces for staff will be provided by way of 20 Sheffield stands in a secure compound.

4.18 10 short stay cycle parking spaces for visitor will ne provided in the form of 5 Sheffield stands.

4.19 Hillingdon Council minimum cycle parking standards are 1 per 250 sqm for land use class E(g)(iii) and 1 per 500 sqm for use classes B2 and B8.

4.20 The London Plan requires a minimum of 1 cycle parking space per 250 sqm GEA for long stay and 1 cycle parking space per 1000 sqm GEA for long stay, which is more onerous than the Hillingdon standards.

4.21 Based on the London Plan standards, a minimum of 35 long stay and 9 short stay cycle parking spaces are required and therefore the proposed provision of 40 long stay and 10 short stay cycle parking spaces meets minimum standards.

### *Motorcycle Parking*

4.22 The development proposals also include 5 parking spaces for motorcycle parking spaces in the car park in the southwest corner of the site.

## Servicing and Refuse Collection

4.23 The layout of the site has been designed to accommodate a 16.5m articulated HGV. A vehicle tracking exercise has been carried out by Hydrock and the swept path of a 16.5m artic accessing each of the loading bays for the four units is included in **Appendix C**.

4.24 **Appendix C** also includes the vehicle tracking of a refuse vehicle and 7.5 tonne rigid HGV accessing each unit along with the swept path of a car accessing selected parts of the proposed car parking areas.

# 5 Trip Generation Assessment

5.1 The site is currently an NCP car park, which is proposed to be redeveloped for industrial use.

5.2 This section of the report sets out the methodology of the trip generation assessment and assesses the net impact of the development scheme.

5.3 When considering the highways and transportation impact of any development, it is important to assess the associated potential trip generation.

5.4 Trip generation during the weekday morning peak (0800-0900) and weekday evening peak (1700-1800) was assessed, the times during which the baseline network demand on the surrounding highway and transportation infrastructure is at its highest.

5.5 It follows that, should the impact of development traffic on the local road network be considered acceptable during these periods, it would also likely be acceptable during other, less busy, periods of the week.

### Existing Trip Generation

5.6 The site is used as an NCP car park and the vehicular access to over the M4 along with the A4 Bath Road were the subject of traffic surveys between the 2nd and 8th July 2019. The results of the traffic surveys are contained in **Appendix D** and **Table 5.1** summarises the weekday peak hour traffic movements associated with the existing NCP car park.

| Existing | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| NCP | 10 | 9 | 4 | 6 |

**Table 5.1: Existing Traffic Flows along NCP Access Road**

### Proposed Development Vehicle Trip Generation

5.7 Trip generation associated with the proposed development has been calculated with reference to the TRICS (Trip Rate Information Computer System) database.

5.8 The full TRICS outputs are attached in **Appendix E** of this report.

5.9 The developer is seeking flexible planning permission to comprise multiple land use classes for the site. These are use classes B2, B8, and E(g)(iii). The TRICS assessment for the development has therefore been repeated three times to determine the potential trip generation of each land use class. This has been based on the development being occupied 100% of each land use rather than an estimated mix, to reflect the flexible permission sought.

*B2*

5.10 A trip generation assessment has been carried out using the following criteria.

- Vehicle surveys carried out from 1st of January 2000 for TRICS category '02 Employment, C – Industrial Unit';
- Located in England; and
- Breakdown of site operations: General Industrial.

*B8*

5.11 A trip generation assessment has been carried out using the following criteria.

- Vehicle surveys carried out from 1st of January 2014 for TRICS category '02 Employment, F – Warehousing (Commercial)';
- Located in Greater London and the Southeast; and
- Edge of town locations

*E(g)(iii)*

5.12 A trip generation assessment has been carried out using the following criteria.

- Vehicle surveys carried out from 1st of January 2000 for TRICS category '02 Employment, C – Industrial Unit';
- Located in England; and
- Breakdown of site operations: Light Industrial.

5.13 Use classes B2 and E(g)(iii) were differentiated by considering B2 to be general industry and E(g)(iii) to be light industry i.e., an industrial process that can be carried out in a residential area without causing detriment to its amenity as set out in The Town and Country Planning (Use Classes) (Amendment) (England) Regulations 2020.

5.14 **Table 5.2** summarises the estimated AM and PM weekday peak hour vehicle trip generation for the development for all three aforementioned land use classes.

| Proposed | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| B2 | 22 | 4 | 4 | 21 |
| B8 | 18 | 8 | 8 | 22 |
| E(g)(iii) | 44 | 9 | 6 | 37 |

**Table 5.2: Proposed Development Vehicle Trip Generation**

5.15 Based on **Table 5.2**, the TRICS assessment indicates that the proposed development could likely generate between 25 and 26 vehicle movements for B2, 26 to 30 vehicle movements for B8 and 43 to 53 vehicle movements for E(g)(iii) during a weekday peak hours.

### Proposed Development Multi-modal Trip Generation

5.16 The development site falls within Census Output Area (COA) Hillingdon 031, which also includes Heathrow Airport. To provide a more representative mode share of the site using 2011 journey to work data, the neighbouring COA of Hillingdon 032 has been used as it is considered that the presence of Heathrow Airport may skew the results.

5.17 The estimated multi-mode share and weekday peak trip generation for each land use is set out in **Tables 5.3 to 5.5**.

| Mode | Mode Share | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|---|
| | | Arrivals | Departures | Arrivals | Departures |
| Car Driver | 61.2% | 22 | 4 | 4 | 21 |
| Car Passenger | 2.9% | 1 | 0 | 0 | 1 |
| Bus | 19.8% | 7 | 1 | 1 | 7 |
| Rail | 8.0% | 3 | 1 | 1 | 3 |
| Pedestrian | 5.3% | 2 | 0 | 0 | 2 |
| Cyclist | 1.3% | 0 | 0 | 0 | 0 |
| Other | 1.5% | 1 | 0 | 0 | 1 |
| **Total** | **100%** | **36** | **7** | **7** | **34** |

**Table 5.3: Proposed Development Multi-Modal Trip Generation – B2**

| Mode | Mode Share | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|---|
| | | Arrivals | Departures | Arrivals | Departures |
| Car Driver | 61.2% | 18 | 8 | 8 | 22 |
| Car Passenger | 2.9% | 1 | 0 | 0 | 1 |
| Bus | 19.8% | 6 | 3 | 3 | 7 |
| Rail | 8.0% | 2 | 1 | 1 | 3 |
| Pedestrian | 5.3% | 2 | 1 | 1 | 2 |
| Cyclist | 1.3% | 0 | 0 | 0 | 0 |
| Other | 1.5% | 0 | 0 | 0 | 1 |
| **Total** | **100%** | **29** | **13** | **13** | **36** |

**Table 5.4: Proposed Development Multi-Modal Trip Generation – B8**

| Mode | Mode Share | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|---|
| | | Arrivals | Departures | Arrivals | Departures |
| Car Driver | 61.2% | 44 | 9 | 6 | 37 |
| Car Passenger | 2.9% | 2 | 0 | 0 | 2 |
| Bus | 19.8% | 14 | 3 | 2 | 12 |
| Rail | 8.0% | 6 | 1 | 1 | 5 |
| Pedestrian | 5.3% | 4 | 1 | 1 | 3 |
| Cyclist | 1.3% | 1 | 0 | 0 | 1 |
| Other | 1.5% | 1 | 0 | 0 | 1 |
| **Total** | **100%** | **72** | **15** | **10** | **60** |

**Table 5.5: Proposed Development Multi-Modal Trip Generation – E(g)(iii)**

5.18 As shown in **Tables 5.3 to 5.5**, the proposed development is estimated to generate up to 17 bus, 7 rail, 5 pedestrian and 1 cycle movement during weekday peak hours.

5.19 Therefore, it is considered that the local footway and public transport networks will be able to accommodate the level of pedestrian and public transport movements associated with the development.

### Net Change in Vehicle Trip Generation

5.20 **Tables 5.6 to 5.8** show the net change in vehicle trip generation associated with the site for each proposed land use.

| Net Change | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| Existing NCP | 10 | 9 | 4 | 6 |
| Proposed B2 | 22 | 4 | 4 | 21 |
| Net Change B2 | 12 | -4 | 0 | 15 |

**Table 5.6: Proposed Development Vehicle Trip Generation – B2**

| Net Change | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| Existing NCP | 10 | 9 | 4 | 6 |
| Proposed B8 | 18 | 8 | 8 | 22 |
| Net Change B8 | 8 | 0 | 4 | 16 |

**Table 5.7: Proposed Development Vehicle Trip Generation – B8**

| Net Change | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| Existing NCP | 10 | 9 | 4 | 6 |
| Proposed E(g)(iii) | 44 | 9 | 6 | 37 |
| Net Change E(g)(iii) | 34 | 1 | 2 | 31 |

**Table 5.8: Proposed Development Vehicle Trip Generation – E(g)(iii)**

### Vehicle Trip Distribution

5.21 The net change in traffic flows for each land use as set out in Tables 5.6 to 5.8 have been distributed onto the local highway network. This has been done using Census 2011 Travel to Work Output Area for Hillingdon 032 as a workplace destination and a peak hour quickest journey time routing assessment to and from the proposed development. **Tables 5.9 to 5.11** provides a summary of the weekday peak vehicle trip distribution on nearby road links with the full analysis contained in **Appendix F** along with associated traffic flow diagram showing the net change in traffic at nearby junction for each land use.

| | Bath Road (East of Access) | Bath Road (West of Access) | Sipson Way |
|---|---|---|---|
| AM Peak Arrivals | 0 | 12 | 9 |
| AM Peak Departures | -5 | 0 | 0 |
| | | | |
| PM Peak Arrivals | 0 | 0 | 0 |
| PM Peak Departures | 15 | 0 | 0 |

**Table 5.9: Net Change in Vehicle Trip Distribution – B2**

| | Bath Road (East of Access) | Bath Road (West of Access) | Sipson Way |
|---|---|---|---|
| AM Peak Arrivals | 0 | 8 | 6 |
| AM Peak Departures | -1 | 0 | 0 |
| | | | |
| PM Peak Arrivals | 0 | 4 | 3 |
| PM Peak Departures | 16 | 1 | 0 |

**Table 5.10: Net Change in Vehicle Trip Distribution – B8**

| | Bath Road (East of Access) | Bath Road (West of Access) | Sipson Way |
|---|---|---|---|
| AM Peak Arrivals | 0 | 34 | 26 |
| AM Peak Departures | 0 | 0 | 0 |
| | | | |
| PM Peak Arrivals | 0 | 2 | 1 |
| PM Peak Departures | 31 | 1 | 0 |

**Table 5.11: Net Change in Vehicle Trip Distribution – E(g)(iii)**

5.22 **Tables 5.9 to 5.11** show that to the west of the proposed access on the A4 Bath Road, there is estimated to be a net increase of 12, 8 and 34 vehicles for B2, B8 and E(g)(iii) respectively. This is traffic turning left into the site during the AM peak.

5.23 For left out traffic during the PM peak, there is estimated to be a net increase of 15, 16 and 31 vehicles to the east of the proposed access on Bath Road, for B2, B8 and E(g)(iii) respectively.

5.24 This represents a net increase in traffic of around one movement every two minutes on the A4 Bath Road during weekday peak hours, which is not anticipated to have a material impact on the operation of the local highway network.

5.25 To provide some context on the quantum of the development traffic on the A4 Bath Road, survey data of the eastbound carriageway was collected over the course of a week between 2nd and 8th July 2019. The results are included in **Appendix D** with a summary of the weekday peak hour flows set out in **Table 5.12**.

| Time | Tues 2nd | Wed 3rd | Thurs 4th | Fri 5th | Mon 8th | Weekday Average |
|---|---|---|---|---|---|---|
| AM Peak (08:00-09:00) | 571 | 587 | 574 | 533 | 639 | 581 |
| PM Peak (17:00-18:00) | 604 | 629 | 654 | 611 | 567 | 613 |

**Table 5.12: A4 Bath Road Existing Traffic Flows**

5.26 **Table 5.12** shows that traffic levels on the eastbound carriageway of the A4 Bath Road ranges from 533 to 639 vehicles during the AM peak and from 567 to 654 during the PM. This is a difference of 106 and 87 vehicle movements respectively and therefore the net change in site traffic as a result of the development proposals of up to 34 vehicles in the AM peak and 31 vehicles in the PM peak is well within daily fluctuations and unlikely to be perceptible.

### Junction Capacity Assessment

5.27 The proposed access has been tested for capacity using Junction 9 using development traffic flows a E(g)(iii) land use, which generates more traffic than B2 and B8 during weekday peak hours and the 2019 ATC survey data for the A4 Bath Road, growthed to 2022.

5.28 The modelling output is contained in **Appendix G** with the results summarised in **Table 5.13**.

| Arm | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Max RFC | Max Queue | Arrivals | Departures |
| Site Access | 0.02 | 0 | 0.07 | 0 |
| A4 Bath Road Eastbound | 0.00 | 0 | 0.00 | 0 |

**Table 5.13: Junction Modelling Results**

5.29 The priority junction is considered to be operating within its design capacity when the RFC id below 0.85 and so the modelling exercise for the site access junction shows that it is predicted to operate well within capacity.

# 6 Summary and Conclusions

6.1 Mayer Brown Limited has been commissioned by Heathrow NCP Property Limited to prepare this Transport Assessment in respect of a proposed demolition of existing car park and redevelopment for industrial (Use Class B2); storage or distribution (Use Class B8); and/or light industrial (Use Class E(g)(iii)) purposes, with ancillary office space, landscaping, car parking, servicing and access arrangements.

6.2 This Transport Assessment demonstrates that:

- The site is accessible by walking and cycling, with a good range of bus services within a short walk of the site to and from Hounslow, Greenford, Kingston, Ruislip and Heathrow Airport and destinations in between with 6 regular bus services stopping outside the site;
- The previously approved site access onto the A4 Bath Road and internal road network can accommodate the access requirement of the proposed development;
- It is considered that the local footway and public transport networks will be able to accommodate the level of pedestrian and public transport movements associated with the development;
- There is estimated to be a net increase in up to 34 vehicles per hour during the weekday AM peak and 31 vehicles per hour during the weekday PM peak. This is not anticipated to have a material impact on the operation of the local highway network;
- The net change in traffic associated with the change of use of the site would be well within daily fluctuations of traffic during weekday peak hours on the A4 Bath Road;
- A modelling exercise for the site access junction shows that it is predicted to operate well within capacity.

6.3 Based on the findings in this Transport Assessment, the development proposals are unlikely to result in any adverse traffic impacts on the operation of the local highway network and therefore, it is considered that there is no reason why the scheme should be resisted on transport grounds.

## APPENDIX A: May 2021 Transport Statement

**APRIROSE REAL ESTATE INVESTMENT**
**NCP CAR PARK, NEW ACCESS**
**BATH ROAD, WEST DRAYTON**

# TRANSPORT STATEMENT

**MAY 2021**

the journey is the reward

# APRIROSE REAL ESTATE INVESTMENT
# NCP CAR PARK, NEW ACCESS
# BATH ROAD, WEST DRAYTON

## TRANSPORT STATEMENT

## MAY 2021

| | |
|---|---|
| **Project Code:** | **NCPHeathrow5.1** |
| **Prepared by:** | **RK** |
| **Approved by:** | **AP** |
| **Issue Date:** | **26th May 2021** |
| **Status:** | **Final** |

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**Aprirose Real Estate Investment**

**NCP Car park, New Access**

**Bath Road, West Drayton**

**Transport Statement**

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### Appendices

# 1 Introduction

1.1 Mayer Brown Limited has been commissioned to prepare this Transport Statement in respect of a proposed new access at the existing NCP car park to the west of the Park Inn Radisson Hotel, Heathrow.

1.2 The site is located just north of the A4 Bath Road and to the east of Sipson Way and provides long term parking for cars while their owners are on leave. The location of the site in context of the local and regional highway network is illustrated in **Figure 1.1 and 1.2** appended hereto.

1.3 The proposals seek to provide direct vehicular access from the site onto the A4 Bath Road in the form of a simple left-in/left-out (LILO) junction, a concept which has been secured in two previous planning applications.

### Planning History

1.4 In 2002, an application for a LILO junction at the site was submitted (reference 41632/APP/2002/147), which subsequently proceeded to planning appeal (reference APP/R5510/A03/1125/426). The proposed changes to the access achieved planning consent at the appeal with full support from the Local Planning Authority and the Planning Inspectorate. Statutory objections were received from Transport for London which were dismissed by the Inspector.

1.5 Despite achieving planning consent, the A4 Bath Road access was not implemented, and the planning permission lapsed.

1.6 Consequently, in 2010 an application was submitted to renew the permission for the access onto the A4 Bath Road (application reference 41632/APP/2010/2301). This application was approved on the 4th February 2011, however the access was again not implemented and so the permission lapsed in 2014.

1.7 Most recently, a pre-planning advice application was made in 2018 (reference 41632/4/PRC/2018/249), in relation to a new vehicular access for the NCP car park identical to that previously submitted in 2010 that received planning consent.

1.8 Similarly, to the previous applications which ultimately gained consent, TfL have rejected the proposals. In a letter dated 24th September 2018, they outlined the following transport related concerns:

- Highways conditions – Steady rise (save one year's plateau) of the daily average traffic count since 2012. It is also assumed cycle flows on the A4 carriageway and segregated path have increased as much as background levels in Greater London;
- Highways Safety – Proximity to a bus stop (visibility concerns, conflict with buses);
- Highways Safety – Lack of acceleration and deceleration lanes (may cause congestion or force drivers to illegally use the bus lane rather than move directly into offside lane);
- Highways Safety – Proposed design cuts through vehicle restrain barrier (protects vehicles from crashing onto M4 spur or colliding with pedestrians and cyclists);
- Walking and Cycling – Cyclists and Pedestrians will be required to cross a wide bell-mouth formed by the new access and associated turning radii.

1.9 This transport statement will therefore address these concerns within the following sections:

- Site Description, Access Proposals and Vehicle Routing
- Existing Traffic Generation
- Junction Capacity
- 2018 Pre-application Response
- Summary and Conclusions

# 2 Site Description, Access Proposals and Vehicle Routing

## Site Description

2.1 The application site is an NCP run car park for Heathrow Airport travellers, located immediately northwest of where the M4 spur passes under the A4 Bath Road in West Drayton.

2.2 There are 630 vehicle spaces and 4 spaces for disabled users on the site; this parking level will not be altered as a result of the proposals.

2.3 A shuttle bus operates every 20 minutes from 4am to 11:40pm between the site and Terminals 2 and 3. Access to the other terminals can be gained from T2&3 via inter-terminal shuttle trains.

## Existing Access and Adjacent Highway

2.4 The primary access to the site is via a narrow, single way working bridge over the M4 spur road. This is accessed via a road that runs adjacent to the western side of the Park Inn Radisson Hotel. Access to the Radisson Hotel is gained from the Sipson Road / A4 / Nene Road/ M4 Spur signal junction and a priority junction on the A408 Sipson Road.

2.5 A secondary access for emergency vehicle use only is located on the western boundary of the site onto Sipson Way.

2.6 The A4 Bath Road is a primary route into London and also serves as a major distributor to London's Heathrow Airport. Adjacent to the site, the A4 is a dual carriageway with a central reserve. Across the site frontage in an eastbound direction there is a combined bus, cycle and taxi lane as well as a single traffic lane. Westbound across the site frontage there are two all traffic lanes. Adjacent to the eastbound carriageway a segregated 3.5-metre-wide footway and 2.2-metre-wide cycleway is also provided.

2.7 Street lighting is provided on this section of the A4 and the carriageway is subject to a 50-mph speed limit. The A4 has been designated a Red Route Clearway, with no stopping allowed in this area.

2.8 Approximately 50 metres prior to the signal junction of the A4 with Sipson Road, the eastbound bus/cycle/taxi lane ends and three lanes are provided at the stop line. These comprise a dedicated right turn lane to Nene Road, a dedicated ahead lane to the A4 and a combined ahead and left turn to the A4 and Sipson Road. Adjacent to the western arm of the A4 at this junction is the M4 spur off-slip which comprises two lanes.

2.9 The Sipson Road arm of this signal junction comprises a single all movements lane, while the eastern A4 arm comprises a dedicated right turn lane, a dedicated ahead lane and a combined ahead and left turn lane. Nene Road, the southern arm of this junction comprises three lanes, a left turn, right turn and ahead lane. The A4 and Nene Road arms feature dedicated cycle waiting boxes at the traffic lights.

2.10 Sipson Way bordering the west of the site Way serves primarily residential units and is subject to a 30mph speed limit. Sipson Way is a controlled-parking zone between 8am and 10pm on all days and parking along the majority results in sections working as a single lane. The carriageway and footway are subject to regular street lighting.

2.11 Visibility to the west for drivers exiting Sipson Way is in excess of 2.4m x 160m.

*Accident Data*

2.12 Accident statistics have been obtained from Transport for London covering the section of the A4 immediately adjacent to the site and Sipson Way for the 3-year period before August 2020.

2.13 The full statistics and an analysis of them are contained in **Appendix A** of this assessment.

2.14 Only 6 incidents were recorded and the analysis found a very low severity of collisions, with 100% of incidents classified as slight.

2.15 The development proposals are unlikely to materially affect the level of accidents recorded on the local highway network, with further detail on this provided in section five of this Transport Statement.

## Site Access Proposals

2.16 Presently, the existing site access is concealed behind the Park Inn Radisson Hotel, which can be confusing for drivers attempting to find the NCP car park, which has no obvious presence on any existing approach to the site.

2.17 The problems associated with signing to the car park inevitably leads to extended journeys as drivers search to find the site. In addition, the existing access arrangements are clearly unsatisfactory from a highway safety perspective as drivers search for the site access will not be giving their full attention to local road conditions at a busy interchange on the A4 Bath Road.

2.18 It is therefore proposed to improve the site access through the provision of a single junction onto the A4 Bath Road. The junction will comprise a left-in/left-out priority arrangement located on the eastern side of the site frontage with the A4. The junction layout proposals and full site plan are illustrated in **Appendix B** appended hereto and are similar to the layout of the Sipson Way/A4 junction located immediately to the west.

2.19 The proposed access will require a short break in the eastbound dedicated bus lane to allow entry and exit for the site access. The break has been kept to a minimum, to ensure that it will not adversely affect the operation of the bus lane.

2.20 Tracking drawings demonstrating that the proposed access can be safely used by a medium sized car, minibus, HG rigid vehicle and 16.5m articulated vehicle are illustrated in **Appendix C**. All drawings show that a vehicle can safely access and egress the offside lane when utilising the proposed access.

2.21 The proposals also include extending the 40mph speed limit on the A4 up to Sipson Way. Currently, this section of the A4 Bath Road is subject to a 50mph speed restriction until approximately 50m before the Bath Road / Sipson Road / Nene Road Junction, where the speed restriction becomes 40mph.

2.22 It is proposed to place new 40mph signs at the Sipson Way junction as shown in **Appendix D,** extending the 40mph speed limit by just 320m.

2.23 An extension of the 40mph speed limit by 320m could result in an extended journey time of just 3.6 seconds in comparison to a 50mph speed limit (320m at 50mph would take 14.4 seconds, 320m at 40mph would take 18 seconds), and therefore will have a negligible impact on road users of the A4 in this location for anyone travelling at the maximum speed limit.

2.24 Notwithstanding the above, an ATC survey was conducted in July 2019 adjacent to the site. Full results are located in **Appendix E** which demonstrate an 85$^{th}$ percentile speed of 38.4mph for eastbound vehicles.

2.25 It is therefore clear that vehicles are already driving at or below a 40mph speed in this location and thus extending the speed limit to Sipson Way will have a very minimal impact on the operation of A4 Bath Road and essentially formalises what happens at present on the A4 in terms of vehicles speeds.

### Vehicle Routing

2.26 The existing site access serves both customer vehicles, generally cars, and also the midi-sized shuttle buses that transport customers from the site to the various airport terminals. Customers currently arrive from all directions to the site, accessing the car park either via the M4 off-slip or the Sipson Road/A4 signal junction. Buses are currently routed from the site via the Sipson Road (northern arm) of the Sipson Road signal junction to undertake a circuit of the airport terminals and return via the Nene Road (southern arm) of the signal junction.

2.27 As part of the proposed access improvements, the existing access via the Radisson Hotel will be closed. The proposed new access will mean that customers approaching the site from the west will turn left into the site from the A4. Customers arriving at the site from the east will 'U-turn' at the West Ramp / Newbury Road /Newport Road roundabout so as to also use the left slip into the site. Similarly, customers exiting the site wishing to travel west will 'U-turn' at the East Ramp/Nene Road roundabout.

2.28 Presently, shuttle buses operating between the site and Terminals 2 and 3 must use the A4/Sipson Road/Nene Road traffic signal junction to access the Nene Road Roundabout from which the buses will then undertake a circuit of the airport terminals. When returning to the site, buses will utilise the Northern Perimeter and New Road roundabout to turn onto the A4, before turning left at the A4/Sipson Road/Nene Road traffic signals to access the hotel service road.

2.29 Under the proposed improvements, shuttle buses will turn left from the site, travelling eastbound. At the A4/Sipson Road/Nene Road traffic signal junction, buses will turn right and undertake a circuit of the airport terminals and will return to the site via the Northern Perimeter Road and New Road, turning onto the A4 to the west of the site via the Newport Road/A4 signal junction, allowing the buses to turn left into the site.

2.30 Therefore, in addition to the general benefits of reducing driver confusion, the proposals provide the opportunity to halve the number of bus movements utilising the A4/Sipson Road/Nene Road junction.

# 3 Existing Traffic Generation

3.1 The site is currently used as a long stay car park catering for holiday makers and business travellers, accommodating 634 vehicles.

3.2 There are two main generators of traffic on the site namely the car park customers and the courtesy shuttle buses that transports passengers to the nearby airport terminals.

3.3 Traffic surveys on the A4 Bath Road and Hotel Service Road were carried out by 360TSL between the 2nd and 8th July 2019.

### A4 Bath Road

3.4 The peak eastbound flows for the A4 were recorded between 09:00-10:00 during the morning and 18:00-19:00 during the evening.

3.5 The average weekday traffic flows associated with the morning and evening peak hours as well as the total daily flows are illustrated in **Table 3.1** below, with full survey data located in **Appendix E**.

| | AM Peak 9:00-10:00 | PM Peak 18:00-19:00 | Daily Flows (00:00-24:00) |
|---|---|---|---|
| AAWT | 581 | 613 | 9,766 |

**Table 3.1: 2019 Existing A4 Bath Road Traffic Flows**

### NCP Car Park Access

3.8 Due to the nature of the existing development and its relatively low traffic generation, the critical peak hours have been determined based on the adjacent A4 Bath Road. Peak weekday and daily flows for the Hotel Service Road providing access to the car park are presented in **Table 3.2** below:

| | AM Peak (09:00-10:00) | | PM Peak (18:00-19:00) | | Daily Flow (00:00-24:00) | |
|---|---|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures | Arrivals | Departures |
| AAWT | 10 | 9 | 4 | 7 | 132 | 132 |

**Table 3.2: 2019 Existing Traffic Flows along NCP Access Road**

3.9 It is clear from the above tables that the site attracts a negligible level of traffic during both peak hours in comparison to the traffic flows associated with the A4.

# 4 Junction Capacity

4.1 As already stated, the traffic generated by the existing car park operation already accesses the A4 via the Park Inn Radisson Hotel, therefore there will be no new traffic on the network. It is proposed that the level of this traffic will not change but will access the A4 via a purpose built left in/left out junction, with a minor associated redistribution on the local network.

4.2 The proposals will have no effect on the traffic attraction of the car park site and therefore will not result in any additional traffic on the adjacent highway network. As set out previously, the level of traffic associated with the site in the morning and evening peak periods is negligible, especially bearing in mind the level of traffic on the A4 in these peak periods. The proposals therefore have no impact on the adjacent highway in terms of vehicle numbers.

4.3 While there is no impact in terms of vehicle numbers on the A4, in order to provide a robust assessment a capacity assessment of the proposed site access arrangement has been undertaken. The junction capacity has been assessed for the weekday morning and evening peak hours using the TRL Junctions 9 software, which is the generally accepted method of junction capacity assessment of priority junctions.

4.4 Traffic flows from the 2019 ATC survey were used and growthed to 2021 flows using TEMPRO so that the modelling would be robust.

4.5 Utilising surveyed traffic flows, the Junctions 9 model is capable of calculating a Ratio of Flow to Capacity (RFC) to determine the anticipated performance of a junction. A priority junction with a calculated RFC of 1.0 is considered to have reached its theoretical capacity.

4.6 The junction capacity results are summarised in **Table 4.1 and 4.2** below and the full output files are contained in **Appendix F**.

| Arm | AM Peak | |
|---|---|---|
| | Max. RFC | Max Queue |
| Site Access | 0.02 | 0.0 |
| A4 Bath Road Eastbound | 0.00 | 0.0 |

**Table 4.1: Junction Capacity Results AM Peak**

| Arm | AM Peak | |
|---|---|---|
| | Max. RFC | Max Queue |
| Site Access | 0.01 | 0.0 |
| A4 Bath Road Eastbound | 0.00 | 0.0 |

**Table 4.2: Junction Capacity Results PM Peak**

4.7 It can be seen from the above tables that the proposed access will operate well within capacity during both the AM and PM peaks and will have a negligible impact on the A4 Bath Road in terms of capacity or queuing.

# 5 Pre-application Response

5.1 This section will outline responses to the transport concerns TfL raised in the 2018 pre-application discussion relating to the proposals. A full copy of the letter received from TfL is located in **Appendix G**.

### Increase in Traffic Flows

*Vehicle Flows*

5.2 TfL stated in their pre-application response the following text:

*"Your proposal for a new access will be assessed in the context of more challenging, peak-time congested conditions than in 2010 let alone 2004 and the steady rise (save one year's plateau) of the daily average traffic count since 2012".*

5.3 The Department for Transport (DfT) provide road traffic statistics collected over the last 18 years at 44,911 manual count points across the UK. A manual count point is located on the A4 Bath Road, approximately 530m east of the proposed new access.

5.4 **Table 5.1** below presents the total daily motor vehicle counts in an eastbound direction at this count point between 2002 (when the first application for this access was approved) and 2019. Stars are placed by years that have been estimated by the DfT rather than manually counted.

| Year | Daily Total Motor Vehicles | Difference with 2002 Figure |
|---|---|---|
| 2002 | 15,933 | - |
| 2003* | 15,849 | -84 |
| 2004* | 16,080 | 147 |
| 2005 | 14,836 | -1,097 |
| 2006* | 15,096 | -837 |
| 2007* | 14,971 | -962 |
| 2008* | 14,655 | -1,278 |
| 2009 | 21,638 | 5,705 |
| 2010* | 21,160 | 5,227 |
| 2011 | 12,428 | -3,505 |
| 2012* | 12,225 | -3,708 |
| 2013 | 12,538 | -3,395 |
| 2014* | 12,539 | -3,394 |
| 2015* | 12,488 | -3,445 |
| 2016* | 12,369 | -3,564 |
| 2017 | 10,865 | -5,068 |
| 2018* | 10,829 | -5,104 |
| 2019* | 10,857 | -5,076 |

**Table 5.1: Manual Count Point Data on the A4 Bath Road**

5.5 **Table 5.1** clearly indicates a reduction in traffic flows over the last two decades, with only a few years within this time seeing an increase. Between the original application in 2002 and now, traffic flows have reduced by 5,067 counts in the eastbound direction.

5.6 **Table 5.1** also indicates that traffic flows had temporarily increased to 21,638 in 2009 and 21,160 in 2010 before dropping again. Therefore, traffic flows have decreased by 10,303 counts in comparison to when the 2010 planning application was approved.

5.7 In regard to the claim by TFL that traffic levels have steadily risen since 2012, **Table 5.1** illustrates that traffic levels have steadily decreased over this time period and thus traffic conditions in this location have only got better.

5.8 Additionally, for each application, an independent traffic survey was done on the A4 Bath Road eastbound, in proximity to the proposed vehicle access. The AADT results from these surveys are presented in **Table 5.2** below with full survey data located in **Appendix E**:

| | July 2000 | October 2010 | July 2019 |
|---|---|---|---|
| AADT | 14,069 | 8,156 | 9,333 |

**Table 5.2: Traffic Survey Results for 2000, 2010 and 2019 on A4 Bath Road**

5.9 **Table 5.2** indicates a significant drop in eastbound traffic levels between 2000 and 2019 of 4,736 vehicles.

5.10 Therefore, both the DfT manual traffic point data and independent survey data indicate a significant decrease in traffic counts along this stretch of the A4 Bath Road since the original planning application was approved. Additionally, the DfT count point data show a continued decrease in flows at this location since 2012, thus indicating that TfL's claim of a steady increase in AADT since 2012 is unfounded.

*Cycle Flows*

5.11 TfL also suggest that *"cycle flows on the A4's carriageway and its segregated path have increased at least as much as background levels in Greater London, which during the period from 2000 to 2012 experienced a doubling in the number of daily journeys made by bicycle to 580,000, and this remains the fastest-increasing mode of transport."*

5.12 **Table 5.3** below presents the DfT manual count point data for pedal cycles at the A4 Bath Road, with estimated years highlighted by a star.

| Year | Daily Pedal Cycle Count | Difference with 2000 Count |
|---|---|---|
| 2000* | 32 | - |
| 2001* | 35 | +3 |
| 2002 | 52 | +20 |
| 2003 | 38 | +6 |
| 2004 | 33 | +1 |
| 2005 | 58 | +26 |
| 2006* | 37 | +5 |
| 2007* | 48 | +16 |
| 2008* | 56 | +24 |
| 2009 | 0 | -32 |
| 2010* | 0 | -32 |
| 2011 | 5 | -27 |
| 2012* | 4 | -28 |
| 2013 | 52 | +20 |
| 2014* | 59 | +27 |
| 2015* | 67 | +35 |
| 2016* | 70 | +38 |
| 2017 | 51 | +19 |
| 2018* | 50 | +18 |
| 2019* | 47 | +15 |

**Table 5.3: Manual Count Cycle Flows on A4 Bath Road**

5.13 **Table 5.3** indicates that between the year 2000 and 2012, cycle counts in this location decreased by 87.5% and thus did not experience the doubling seen across the rest of Greater London noted by TfL.

5.14 However, between 2000 and 2019**,** cycle counts in this location did increase by 32% from 32 to 47. However, 47 cycles a day equates to approximately 2 cycles per hour across a 24-hour period which does not constitute a high use of this facility.

5.15 For context, a nearby cycle superhighway (CS7) on Clapham High Street (A3) had a manual count of 3508 pedal cycles in 2018, which equates to approximately 146 cycles per hour in a 24-hour period. Therefore comparably, the cycle facilities on the A4 adjacent to the proposed site are very lightly trafficked.

5.16 Cycle flows in this location are therefore not considered to be of a significant level.

### Lack of Acceleration and Deceleration Lanes

5.17 TfL noted that "*The DMRB states acceleration/deceleration lanes should be provided for roads where the design speed for the A road is 85kph (53mph) or above. Therefore, whilst Bath Road is just under that speed I think in this scenario with the bus lane it could benefit from it".*

5.18 The proposals include extending the 40mph speed limit to the Sipson Way junction, approximately 60m to the west of the proposed site access.

5.19 ATC results from 2019 demonstrate an 85$^{th}$ percentile speed on the A4 eastbound of 38.4mph (full results located in **Appendix E)**, therefore the extension of the 40mph speed limit will essentially formalise what presently occurs with regard to vehicle speeds.

5.20 Guidance contained in the Design Manual for Roads and Bridges CD123 'Geometric design of at-grade priority and signal-controlled junctions' document sets out that nearside diverging tapers, merging tapers and auxiliary lanes shall not be provided where the design speed of the major road is less than 85kph.

5.21 The A4 in proximity to the junction will be 40mph which equates to a design speed of 70kph and thus will be well under the threshold requiring a nearside diverging taper.

### Proximity to Bus Stop

5.22 TfL raised concerns that the proximity of the access to the existing bus stop will affect visibility of those exiting and pose a risk of conflict with buses pulling away at the same time.

5.23 The Design Manual for Roads and Bridges CD109 'Highway link design' document sets out permitted stopping site distances according to the design speed of the road. The A4 in this location will be subject to a 40mph speed restriction which is a 70kph design speed and thus a stopping sight distance of 120m will be required.

5.24 Visibility splays located in **Appendix H** demonstrate that a 120m visibility splay can be achieved from the proposed access, clear of the bus cage. This allows for safe manoeuvres and therefore there will not be an increased collision risk as a result of the proposals.

5.25 Additionally, TfL note in their Accessible Bus Stop Guidance Document (2017) that a bus using a bus stop is a temporary obstruction and that it is the furniture associated with a stop (for example the shelter, post or flag) that should not unduly obscure sight lines. No furniture associated with the bus stop is present in the visibility splay from the proposed junction.

### Design Cuts Through Safety Barrier

5.26 In the pre-app response, TfL stated that *"The original design (entrance/exit to the east) cuts through the vehicle restraint barrier (crash barrier) and so part of the barrier would need removing, but it is queried whether this would open up a safety concern that the barrier had previously solved (i.e vehicles crashing onto the M4 Spur Road, damaging the bridge structure and/or colliding with pedestrians and cyclists)."*

5.27 The updated design of the proposed access, located in **Appendix B**, no longer cuts through the existing vehicle restraint barrier which can be left in-situ.

### Walking and Cycling

5.28 TfL raised concerns regarding walking and cycling for three reasons, firstly that the removal of the safety barrier would remove protection for vulnerable road users which they viewed as *"unacceptable"* and secondly, that the new access would require cyclists and pedestrians to cross a *"wide bell-mouth formed by the new access"*. Thirdly it was identified that *"The 2011 RSA noted that no provision is made to indicate the presence of the access to pedestrians, increasing the potential for conflict with vehicles ingressing and egressing".*

5.29 As the updated design does not require removal of the safety barrier, there is no longer a safety concern regarding vulnerable road users in relation to this.

5.30 Furthermore, the proposed LILO junction is designed very similarly to the LILO junction at Bath Road / Sipson Way, immediately to the west of the site. Both pedestrians and cyclists are able to navigate this junction without any safety concern, as demonstrated by the fact that there have been no incidents involving a pedestrian at this junction in the last 3 years (further detail on accidents in the local area is located in **Appendix A**).

5.31 While outside of the accident data study area, many other junctions along this side of the A4 Bath Road also feature wide bell-mouth crossings that pedestrians and cyclists safely navigate, for example Heathrow Boulevard and Airport Gate to the west of the site. Therefore, it is not believed that the proposed access poses a safety concern for vulnerable road users given the operation of the adjacent infrastructure.

5.32 Finally, the updated design included in **Appendix B** includes tactile paving at both the ingress and egress and on the centralised island, indicating the presence of an access to pedestrians.

## Summary

5.33 This section has demonstrated the following:

- Between 2002 and 2019, traffic flows on the A4 Bath Road have reduced by 5,067 counts in the eastbound direction according to DfT's manual traffic counts. Between 2012 and 2019 flows have reduced by 1,368 vehicles, directly opposing the claim by TfL that traffic flows have steadily increased since 2012.
- ATC data collected in 2000, 2010 and 2019 also demonstrates a significant drop in traffic levels on the A4 eastbound carriageway of 4,736 vehicles.
- A DfT count point in close proximity to the site estimated 47 daily cyclists in 2019 which equates to two per hour across a 24 hour time period, indicating cycle flows in this location are not considered to be at a significant level.
- Visibility splays demonstrate sufficient visibility can be achieved from the proposed junction without being obscured by buses sitting in the nearby bus gate.
- Accident data demonstrates that there is likely very little safety concern for vulnerable road users in this location. The LILO junction at Sipson way operates very similarly to the proposed access and both cyclists and pedestrians are able to navigate this safely.

# 6 Summary and Conclusions

6.1 Mayer Brown Limited has prepared this Transport Statement in respect of a proposed new access at the existing NCP car park to the west of the Park Inn Radisson Hotel, Heathrow.

6.2 The proposals seek to provide direct vehicular access from the site onto the A4 Bath Road in the form of a simple left-in/left-out (LILO) junction, a concept which has been secured in two previous planning applications.

6.3 This report finds the following:

- The proposals will not affect the traffic attraction of the development site and are only required to improve the convenience and serviceability for customers and the associated bus service of the NCP car park. As a result the proposed improvements will not have an impact on the adjacent highway network in terms of vehicle numbers;
- Capacity tests indicate that the proposed access arrangements will operate well within capacity in the critical morning and evening peak periods;
- Tracking drawings provided highlight that the junction can be safely used by vehicles ranging from a medium car to a 16.5m articulated vehicle;
- Accident records obtained from TfL indicate a low severity ration of collisions and there is no evidence to suggest the proposals will materially impact the level of accidents in the local area;
- The updated design requires no removal of any portion of the existing vehicle restraint barrier on the A4 Bridge and thus no longer provides a safety concern for vulnerable road users; and
- The LILO junction design is very similar to the adjacent LILO junction at Sipson Way, which is safely navigated by pedestrians and cyclists as demonstrated by the accident records. Therefore, the proposed junction is not a safety concern for vulnerable road users.

6.4 It is therefore considered that the proposed improvements will have no detrimental effect on the adjacent highway network and thus the application should not be refused on transport grounds.

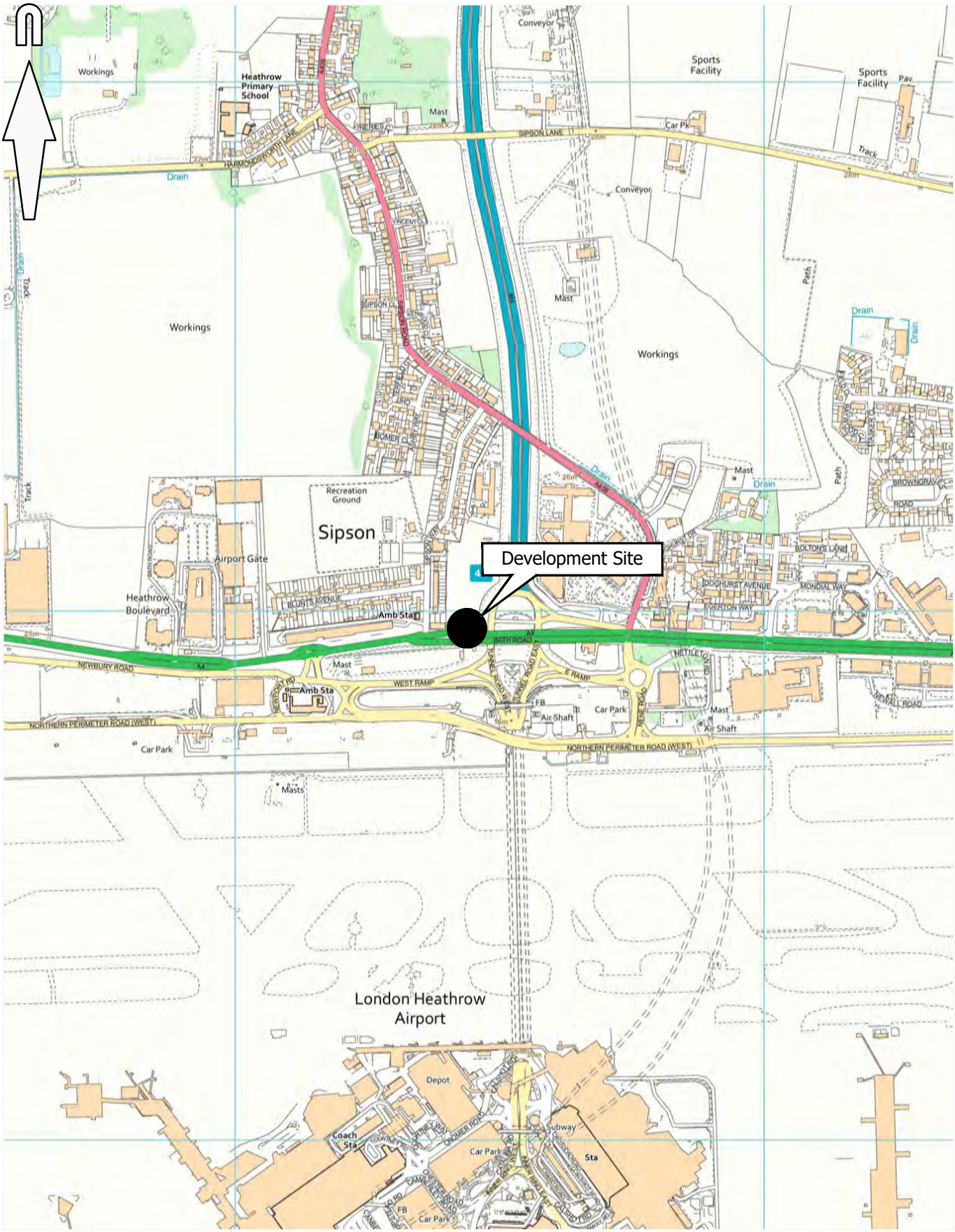



mayer brown

Site in Relation to the Regional Highway Network

Scale 1:50 000

Figure 1.1






mayer brown

Site in Relation to the Local Highway Network

Scale 1:10 000

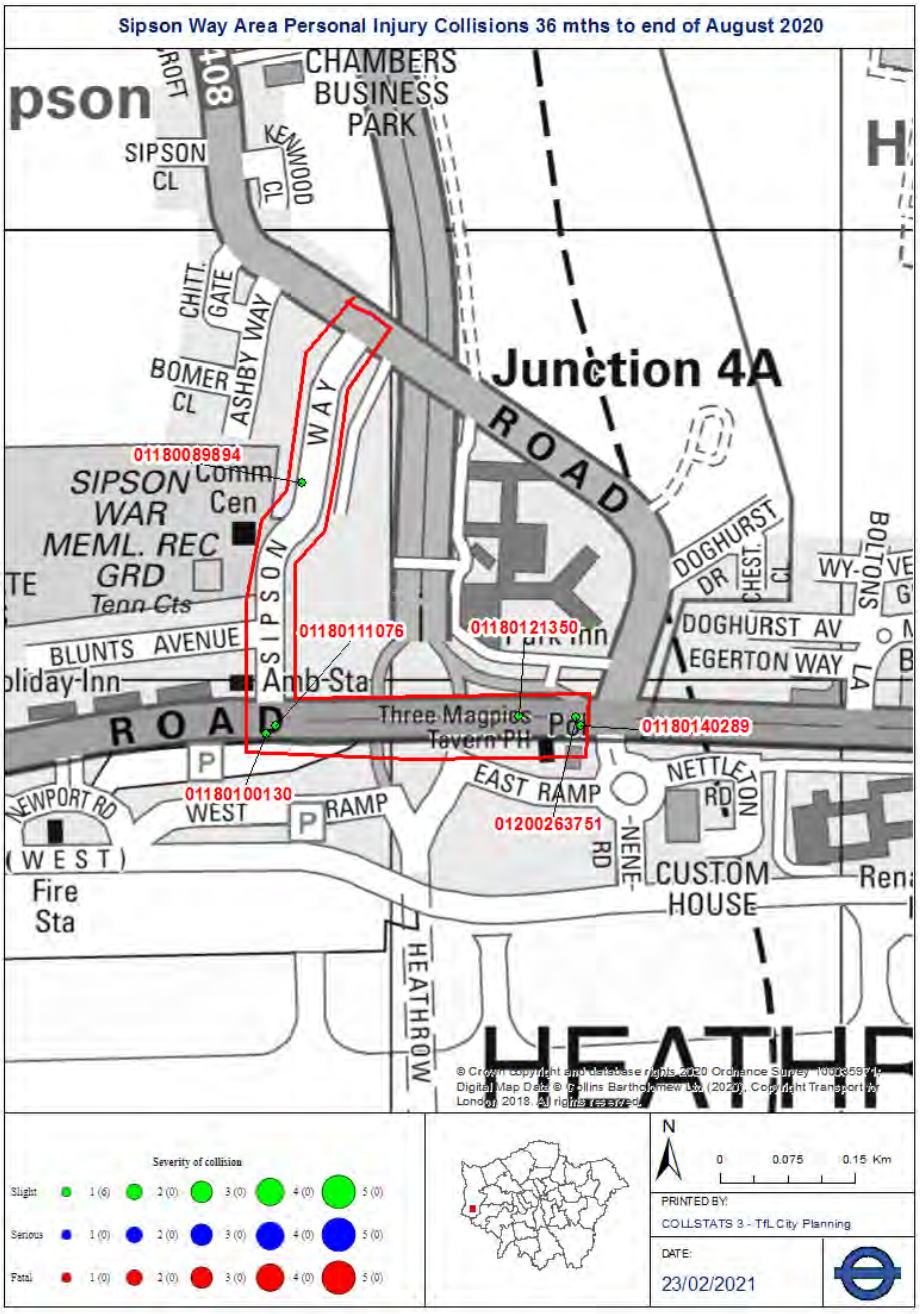
Figure 1.2

# APPENDIX A: Accident Statistics and Analysis

## A4 BATH ROAD AREA STUDY – ACCIDENT ANALYSIS

Accident records have been obtained from Transport for London for the three year period between August 2017 and August 2020. It is beyond the scope of this study to provide comparative analysis with similar London Borough locations.

The accident plots are outlined in the figure below:




The study area includes Sipson Way and a section of the A4 Bath road between Sipson Way and Sipson Road. Sipson Way is a residential street subject to a 30mph speed limit, while this stretch of the A4 is a dual carriageway subject to a 50mph speed limit.

Throughout the study area as a whole, six slight accidents were recorded during the three-year period, a very low severity ratio.

Statistical information provided also indicated that:

- Only one incident involved a pedestrian, equating to 17% of the accident total.
- One incident occurred during wet/damp conditions, equating to 17% of the accident total.
- Two accidents occurred at the Bath Road / Sipson Way Junction (33% of total).
- Two accidents occurred at the Bath Road / Sipson Road / Nene Road Junction (33% of total).
- No incidents involved a cyclist.
- One incident involved a London Bus.
- There is no evidence that there has been an increase in accidents during the study period.

While the cause of the accident involving the pedestrian is not recorded, it is stated that the vehicle involved was reversing. Therefore, this location does not provide a safety risk for vulnerable road users.

The Bath Road / Sipson Road / Nene Road Junction is a major junction with high volumes of traffic passing through each day. Therefore, the small number of incidents recorded at this location is not unexpected and do not pose a highways safety concern.

The official causes of the incidents at the Bath Road / Sipson Way Junction are not recorded, however it is possible to identify that one incident involved a vehicle and a goods van >7.5T colliding as the vehicle turned left out of the junction. The details of the other incident are unknown. Again, given the volumes of traffic on the A4 each day, the small number of incidents at this junction over a three-year period do not pose a highways safety concern.

# Bath Road/Sipson Way Personal Injury Collisions 36 mths to end of August 2020 Provisional

**SUMMARY OF COLLISIONS SELECTED**

| SITE REFERENCE AND DESCRIPTION | DATE PERIOD | ACCIDENT COUNT |
|---|---|---|
| A4 BATH ROAD/SIPSON WAY GIS AREA B26 - A4 BATH ROAD/SIPSON WAY AREA(P) | 36MTS TO AUG/2020 | 6 |

**THE DESCRIPTION OF HOW THE COLLISION OCCURRED AND THE CONTRIBUTORY FACTORS ARE THE REPORTING OFFICER'S OPINION AT THE TIME OF REPORTING AND MAY NOT BE THE RESULT OF EXTENSIVE INVESTIGATION**

1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01180089894 | THU 01/02/2018 11:05 | | LIGHT | SIPSON WAY 40M S OF J/W SIPSON RD | | | 26 CELL 507000/177000 | | 507400/177220 |
| SELF-REPORTED | | ROAD-DRY | WEATHER-FINE | SINGLE CWY | NO JUN IN 20M | N/A | NO XING FACIL IN 50M | | NONE IN 50M |
| CASUALTY | 001 (001) | (41 YRS - F - REDA) | | SLIGHT | DRIVER/RIDER | | | | |
| VEHICLE | 001 (000) | CAR | | (41 YRS - F - REDACT) | UNKNOWN S/R | G/AHEAD - OTHER | (S TO N) FRONT HIT FIRST | J/P - UNKN | |
| VEHICLE | 002 (000) | CAR | | (? YRS - M - REDACT) | | REVERSING | (S TO N) BACK HIT FIRST | J/P - UNKN | |

2

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01180100130 | THU 05/04/2018 18:10 | | LIGHT | BATH RD J/W SIPSON WAY | | | 26 LINK 13-16 | | 507360/176940 |
| POLICE - AT SCENE | | ROAD-DRY | WEATHER-FINE | DUAL CWY | T/STAG JUN | GIVEWAY /UNCONT | NO XING FACIL IN 50M | | NONE IN 50M |
| CASUALTY | 001 (001) | (42 YRS - M - REDA) | | SLIGHT | DRIVER/RIDER | | | | |
| VEHICLE | 001 (000) | CAR | | (42 YRS - M - REDACT) | | G/AHEAD - OTHER | (W TO E) FRONT HIT FIRST | COMMUTING JCT APP | |

3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01180111076 | TUE 29/05/2018 16:58 | LIGHT | BATH RD J/W SIPSON WAY | | | 26 LINK 13-16 | | 507370/176950 |
| POLICE - AT SCENE | | ROAD-WET | RAINING | DUAL CWY | T/STAG JUN | GIVEWAY /UNCONT | NO XING FACIL IN 50M | NONE IN 50M |
| CASUALTY | 001 (002) | (59 YRS - F - REDA) | | SLIGHT | DRIVER/RIDER | | | |
| VEHICLE | 001 (000) | GOODS > 7.5T | | (49 YRS - M - REDACT) | ARTICULATED VEH | G/AHEAD - OTHER | (W TO E)<br>N/S HIT<br>FIRST | JOURNEY P/O WORK<br>JCT APP |
| VEHICLE | 002 (000) | CAR | | (59 YRS - F - REDACT) | | TURNING - LEFT | (N TO E)<br>O/S HIT<br>FIRST | COMMUTING<br>E/MAIN RD |

4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01180121350 | MON 16/07/2018 15:37 | LIGHT | BATH RD 65M W OF J/W SIPSON RD | | | 26 LINK 13-16 | | 507640/176960 |
| POLICE - AT SCENE | | ROAD-DRY | WEATHER-OTHER | ONE-WAY ST | NO JUN IN 20M | N/A | NO XING FACIL IN 50M | NONE IN 50M |
| CASUALTY | 001 (001) | (39 YRS - M - REDA) | | SLIGHT | PEDESTRIAN | E BOUND | UNKNOWN/OTHER | |
| VEHICLE | 001 (000) | CAR | | (? YRS - M - REDACT) | | REVERSING | (N TO S)<br>BACK HIT<br>FIRST | J/P - UNKN |

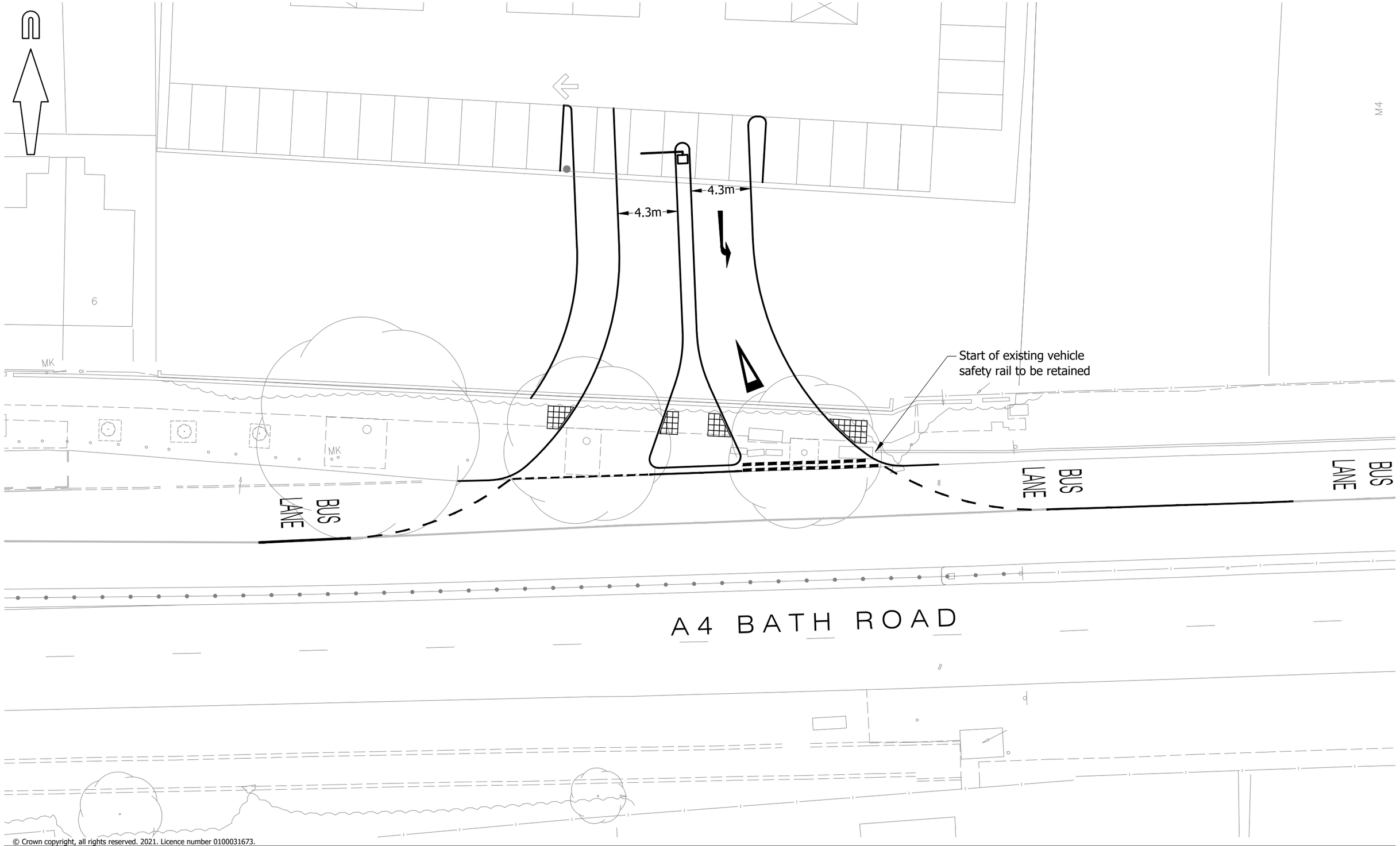
5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01180140289 | SAT 20/10/2018 13:56 | | LIGHT | BATH RD J/W SIPSON RD | | | 26 NODE 16 | | 507710/176950 |
| POLICE - AT SCENE | | ROAD-DRY | WEATHER-FINE | DUAL CWY | CROSSROADS | AUTO SIG | PELICAN OR SIML | | NONE IN 50M |
| CASUALTY | 001 (001) | (48 YRS - M - REDA) | | SLIGHT | DRIVER/RIDER | | | | |
| CASUALTY | 002 (002) | (48 YRS - M - REDA) | | SLIGHT | VEH/PILLION PAX | SEATED PASSENGER | | | |
| CASUALTY | 003 (002) | (34 YRS - F - REDA) | | SLIGHT | VEH/PILLION PAX | SEATED PASSENGER | | | |
| CASUALTY | 004 (002) | (21 YRS - F - REDA) | | SLIGHT | VEH/PILLION PAX | SEATED PASSENGER | | | |
| VEHICLE | 001 (000) | CAR | | (48 YRS - M - REDACT) | | SLOWING/STOPPING | (W TO E) BACK HIT FIRST | J/P - UNKN E/MAIN RD | |
| VEHICLE | 002 (000) | LONDON BUS | | (47 YRS - M - REDACT) | | G/AHEAD - OTHER | (W TO E) FRONT HIT FIRST | JOURNEY P/O WORK JCT MID | |

6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01200263751 | SUN 23/08/2020 13:10 | | LIGHT | A4, NR JUNCT WTH NENE RD. | | | 26 NODE 16 | | 507704/176959 |
| SELF-REPORTED | | UNKNOWN S/R | WEATHER-FINE | DUAL CWY | UNKNOWN S/R | UNKNOWN S/R | PEDN PHASE ATS | | UNKNOWN S/R |
| CASUALTY | 001 (001) | (47 YRS - M - REDA) | | SLIGHT | DRIVER/RIDER | | | | |
| CASUALTY | 002 (001) | (? YRS - UNKNOWN - REDA) | | SLIGHT | VEH/PILLION PAX | FRONT SEAT PASSENGER | | | |
| VEHICLE | 001 (000) | CAR | | (47 YRS - M - REDACT) | | UNKNOWN S/R | (MOVE UNKN) BACK HIT FIRST | UNKNOWN S/R | |
| VEHICLE | 002 (000) | CAR | | (? YRS - UNKNOWN - REDACT) | UNKNOWN S/R | G/AHEAD - OTHER | (S TO N) FRONT HIT FIRST | J/P - UNKN UNKNOWN S/R | |

## APPENDIX B: Proposed Access Layout



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client
HEATHROW NCP PROPERTY LTD

project
NCP CAR PARK, A4 BATH ROAD, HEATHROW

title
POSSIBLE NEW ACCESS ARRANGEMENT

| scale | drawn by | checked by |
|---|---|---|
| 1:250 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P4 |

drawing number
MBSK210222-01




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project
NCP CAR PARK, A4 BATH ROAD, HEATHROW

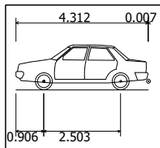
title
CONTEXT PLAN

| scale | drawn by | checked by |
|---|---|---|
| 1:1,000 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P2 |

drawing number
MBSK210222-09

# APPENDIX C: Tracking Diagrams




| Medium Sized Car | |
|---|---|
| Overall Length | 4.319m |
| Overall Width | 1.686m |
| Overall Body Height | 1.466m |
| Min Body Ground Clearance | 0.228m |
| Max Track Width | 1.591m |
| Lock to lock time | 4.00s |
| Kerb to Kerb Turning Radius | 5.042m |

6

MK

MK

BUS LANE

BUS LANE

BUS LANE

A4 BATH ROAD



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project

NCP CAR PARK, A4 BATH ROAD, HEATHROW

title

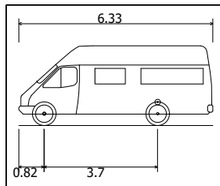
SWEPT PATH ANALYSIS
MEDIUM CAR ENTERING/EXITING SITE

| scale | drawn by | checked by |
|---|---|---|
| 1:250 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P3 |

drawing number

MBSK210222-03




| Mini Bus | |
|---|---|
| Overall Length | 6.330m |
| Overall Width | 2.192m |
| Overall Body Height | 2.601m |
| Min Body Ground Clearance | 0.374m |
| Track Width | 2.192m |
| Lock to lock time | 4.00s |
| Kerb to Kerb Turning Radius | 6.450m |





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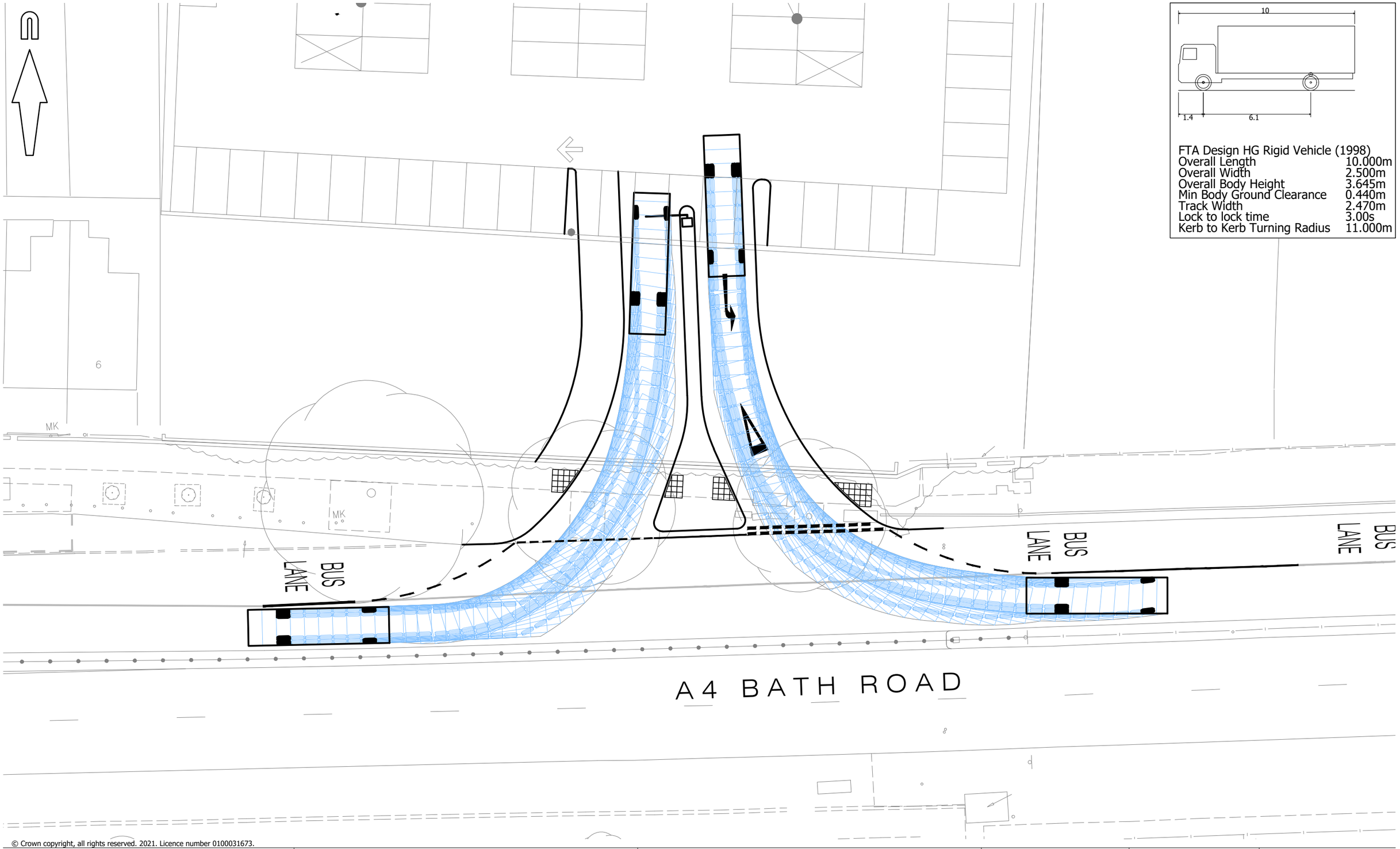
project
NCP CAR PARK, A4 BATH ROAD, HEATHROW

title
SWEPT PATH ANALYSIS
MINIBUS ENTERING/EXITING SITE

| scale | drawn by | checked by |
|---|---|---|
| 1:250 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P3 |

drawing number
MBSK210222-04



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client
HEATHROW NCP PROPERTY LTD

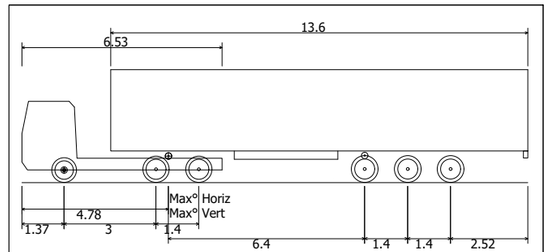
project
NCP CAR PARK, A4 BATH ROAD, HEATHROW

title
SWEPT PATH ANALYSIS
10M RIGID VEHICLE ENTERING/EXITING SITE

| scale | drawn by | checked by |
|---|---|---|
| 1:250 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P3 |

drawing number
MBSK210222-05




| Max Legal Length (UK) Articulated Vehicle (16.5m) | |
|---|---|
| Overall Length | 16.500m |
| Overall Width | 2.550m |
| Overall Body Height | 3.681m |
| Min Body Ground Clearance | 0.411m |
| Max Track Width | 2.500m |
| Lock to lock time | 6.00s |
| Kerb to Kerb Turning Radius | 6.530m |





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\\...planning 7\current jobs\ncpheathrow5 1\dwgs\mbsk210222.dwg

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HEATHROW NCP PROPERTY LTD

project
NCP CAR PARK, A4 BATH ROAD, HEATHROW

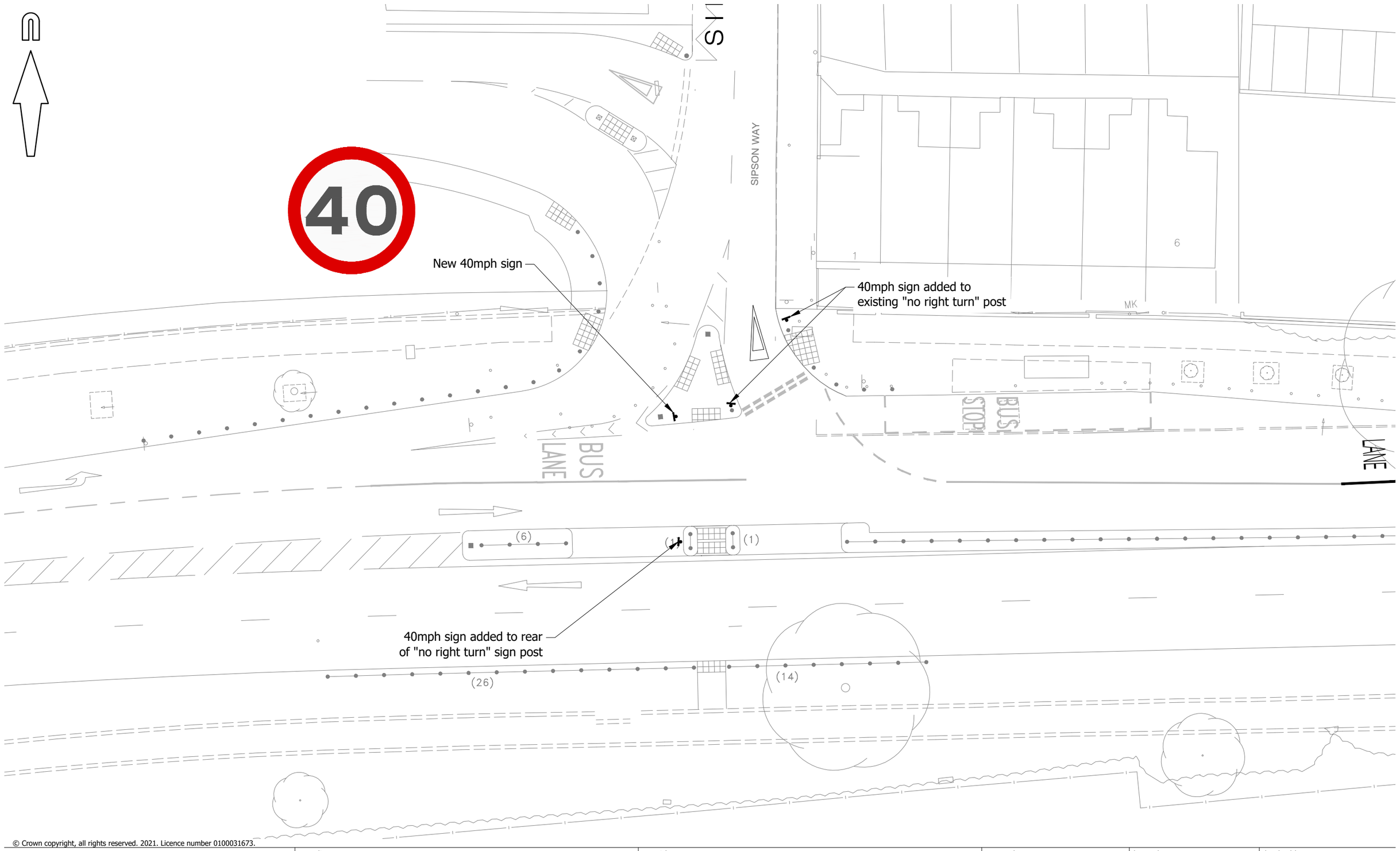
title
SWEPT PATH ANALYSIS
16.5M ARTIC ENTERING/EXITING SITE

| scale | drawn by | checked by |
|---|---|---|
| 1:250 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P3 |

drawing number
MBSK210222-06

# APPENDIX D: 40mph Speed Limit Extension



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HEATHROW NCP PROPERTY LTD

project

NCP CAR PARK, A4 BATH ROAD, HEATHROW

title

POSSIBLE EXTENDED 40 MPH ZONE

| scale | drawn by | checked by |
|---|---|---|
| 1:250 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P2 |

drawing number

MBSK210222-02

# APPENDIX E: Traffic Survey Results

# Heathrow ATC, Bath Road

**Channel 1 - Eastbound** **85th Percentile**

| Hr Ending | 02/07/2019 Tuesday | 03/07/2019 Wednesday | 04/07/2019 Thursday | 05/07/2019 Friday | 06/07/2019 Saturday | 07/07/2019 Sunday | 08/07/2019 Monday |
|---|---|---|---|---|---|---|---|
| 1 | 43.7 | 38.6 | 44.0 | 43.7 | 43.9 | 43.7 | 43.2 |
| 2 | 38.5 | 43.3 | 43.4 | 43.9 | 43.7 | 38.9 | 43.5 |
| 3 | 43.6 | 43.3 | 43.3 | 43.8 | 43.5 | 43.5 | 43.3 |
| 4 | 43.3 | 43.8 | 43.2 | 43.0 | 43.4 | 43.1 | 43.3 |
| 5 | 43.3 | 43.8 | 43.2 | 43.5 | 43.1 | 43.8 | 43.0 |
| 6 | 43.8 | 38.6 | 43.6 | 43.9 | 38.8 | 43.4 | 43.5 |
| 7 | 43.0 | 39.0 | 43.4 | 38.4 | 43.5 | 43.5 | 43.2 |
| 8 | 38.8 | 43.9 | 38.4 | 38.7 | 38.8 | 43.5 | 38.9 |
| 9 | 38.8 | 38.2 | 38.7 | 38.5 | 38.6 | 38.2 | 38.6 |
| 10 | 38.7 | 38.7 | 38.3 | 38.5 | 38.8 | 38.3 | 38.8 |
| 11 | 38.0 | 39.0 | 38.6 | 38.5 | 38.0 | 38.1 | 38.9 |
| 12 | 38.4 | 38.2 | 38.2 | 38.4 | 38.2 | 38.6 | 38.3 |
| 13 | 38.9 | 38.5 | 38.2 | 38.4 | 38.1 | 38.2 | 38.5 |
| 14 | 38.8 | 38.1 | 38.6 | 38.3 | 38.1 | 43.9 | 38.1 |
| 15 | 38.4 | 39.0 | 15.6 | 38.1 | 38.3 | 38.1 | 38.6 |
| 16 | 39.0 | 43.7 | 33.5 | 38.2 | 38.1 | 38.4 | 38.4 |
| 17 | 38.9 | 38.0 | 26.4 | 44.0 | 38.0 | 38.3 | 39.0 |
| 18 | 38.1 | 43.6 | 33.3 | 38.1 | 38.5 | 38.9 | 38.1 |
| 19 | 38.9 | 38.1 | 16.3 | 38.4 | 38.7 | 43.8 | 38.9 |
| 20 | 43.4 | 43.1 | 25.9 | 43.4 | 38.5 | 43.3 | 38.6 |
| 21 | 43.5 | 38.8 | 38.3 | 43.5 | 38.8 | 38.7 | 43.3 |
| 22 | 38.8 | 38.3 | 43.9 | 38.2 | 38.1 | 38.3 | 38.1 |
| 23 | 38.1 | 43.0 | 38.6 | 43.5 | 43.2 | 38.1 | 38.5 |
| 24 | 38.6 | 43.3 | 43.6 | 38.3 | 38.7 | 38.0 | 43.2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10-12 | 38.5 | 38.4 | 38.4 | 38.6 | 38.5 | 38.3 | 39.0 |
| 14-16 | 38.3 | 43.3 | 25.6 | 38.5 | 38.4 | 38.8 | 38.1 |
| 0-24 | 38.6 | 38.9 | 38.6 | 38.2 | 38.1 | 38.3 | 38.0 |

| | |
|---|---|
| 85th %ile | 38.4 |

## A4 Bath Road, July 2000 ATC Survey

| **Eastbound** | Thurs 6th July | Friday 7th July | Saturday 8th | Sunday 9th | Monday 10th | Tuesday 11th | Wednesay 12th | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 66 | 58 | 97 | 129 | 83 | 46 | 60 | 77 | 63 |
| 01:00 | 54 | 36 | 47 | 93 | 40 | 29 | 41 | 49 | 40 |
| 02:00 | 44 | 27 | 48 | 48 | 25 | 24 | 24 | 34 | 29 |
| 03:00 | 73 | 40 | 38 | 31 | 26 | 35 | 37 | 40 | 42 |
| 04:00 | 243 | 100 | 67 | 44 | 114 | 75 | 83 | 104 | 123 |
| 05:00 | 617 | 305 | 137 | 76 | 396 | 295 | 300 | 304 | 383 |
| 06:00 | 854 | 1096 | 394 | 213 | 1340 | 1261 | 1230 | 913 | 1156 |
| 07:00 | 1494 | 1336 | 550 | 356 | 1477 | 1425 | 1414 | 1150 | 1429 |
| 08:00 | 1446 | 1178 | 834 | 467 | 1220 | 1141 | 1263 | 1078 | 1250 |
| 09:00 | 852 | 984 | 960 | 693 | 1052 | 1006 | 1034 | 940 | 986 |
| 10:00 | 645 | 949 | 1001 | 947 | 849 | 863 | 838 | 870 | 829 |
| 11:00 | 679 | 896 | 991 | 915 | 905 | 726 | 792 | 843 | 800 |
| 12:00 | 659 | 909 | 817 | 923 | 729 | 684 | 794 | 788 | 755 |
| 13:00 | 858 | 940 | 803 | 784 | 810 | 693 | 764 | 807 | 813 |
| 14:00 | 699 | 822 | 752 | 966 | 759 | 709 | 804 | 787 | 759 |
| 15:00 | 669 | 896 | 655 | 1087 | 753 | 741 | 827 | 804 | 777 |
| 16:00 | 672 | 946 | 717 | 1219 | 797 | 811 | 934 | 871 | 832 |
| 17:00 | 822 | 949 | 911 | 1294 | 732 | 906 | 864 | 925 | 855 |
| 18:00 | 812 | 768 | 797 | 1216 | 662 | 750 | 773 | 825 | 753 |
| 19:00 | 550 | 678 | 652 | 1219 | 535 | 553 | 541 | 675 | 571 |
| 20:00 | 409 | 502 | 433 | 840 | 310 | 299 | 294 | 441 | 363 |
| 21:00 | 287 | 309 | 288 | 604 | 267 | 224 | 249 | 318 | 267 |
| 22:00 | 254 | 226 | 245 | 352 | 188 | 351 | 194 | 259 | 243 |
| 23:00 | 162 | 144 | 230 | 158 | 93 | 182 | 118 | 155 | 140 |
| **Totals** | 13,920 | 15,094 | 12,464 | 14,674 | 14,162 | 13,829 | 14,272 | **14,059** | **14,255** |

## A4 Bath Road, October 2010 ATC Survey

| **Eastbound** | Thurday 14th | Friday 15th | Saturday 16th | Sunday 17th | Monday 18th | Tuesday 19th | Wednesday 20th | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | 82 | 122 | 152 | 71 | 73 | 108 | 101 | 84 |
| 100 | | 45 | 40 | 95 | 33 | 32 | 50 | 49 | 38 |
| 200 | | 38 | 63 | 62 | 36 | 43 | 40 | 47 | 40 |
| 300 | | 36 | 59 | 47 | 32 | 51 | 52 | 46 | 45 |
| 400 | | 99 | 95 | 87 | 89 | 97 | 85 | 92 | 90 |
| 500 | | 203 | 178 | 167 | 229 | 218 | 214 | 202 | 220 |
| 600 | | 388 | 297 | 243 | 445 | 421 | 432 | 371 | 433 |
| 700 | | 519 | 278 | 240 | 593 | 578 | 567 | 463 | 579 |
| 800 | | 531 | 298 | 257 | 660 | 629 | 598 | 496 | 629 |
| 900 | | 477 | 325 | 230 | 566 | 479 | 455 | 422 | 500 |
| 1000 | 208 | 390 | 272 | 263 | 470 | 398 | 390 | 342 | 371 |
| 1100 | 417 | 397 | 306 | 303 | 385 | 418 | 379 | 372 | 399 |
| 1200 | 491 | 478 | 423 | 394 | 470 | 440 | 456 | 450 | 467 |
| 1300 | 534 | 544 | 513 | 445 | 535 | 515 | 520 | 515 | 530 |
| 1400 | 561 | 594 | 554 | 473 | 524 | 563 | 532 | 543 | 555 |
| 1500 | 463 | 533 | 382 | 406 | 451 | 464 | 440 | 448 | 470 |
| 1600 | 581 | 561 | 322 | 390 | 476 | 577 | 549 | 494 | 549 |
| 1700 | 619 | 618 | 348 | 418 | 580 | 653 | 596 | 547 | 613 |
| 1800 | 490 | 500 | 363 | 533 | 495 | 554 | 567 | 500 | 521 |
| 1900 | 419 | 453 | 368 | 408 | 381 | 432 | 482 | 420 | 433 |
| 2000 | 358 | 439 | 303 | 362 | 370 | 357 | 361 | 364 | 377 |
| 2100 | 378 | 381 | 325 | 346 | 350 | 359 | 336 | 354 | 361 |
| 2200 | 383 | 394 | 316 | 326 | 318 | 358 | 345 | 349 | 360 |
| 2300 | 201 | 161 | 197 | 162 | 137 | 171 | 152 | 169 | 164 |
| **Totals** | 6,103 | 8,861 | 6,747 | 6,809 | 8,696 | 8,880 | 8,706 | **8,156** | **8,829** |

## A4 Bath Road, July 2019 ATC Survey

| Eastbound | Tues 2nd July | Weds 3rd July | Thurs 4th July | Friday 5th July | Sat 6th July | Sun 7th July | Mon 8th July | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 141 | 149 | 133 | 171 | 147 | 170 | 145 | 151 | 148 |
| 2 | 53 | 64 | 60 | 83 | 67 | 108 | 58 | 70 | 64 |
| 3 | 53 | 68 | 51 | 66 | 78 | 69 | 44 | 61 | 56 |
| 4 | 77 | 72 | 63 | 70 | 66 | 53 | 61 | 66 | 69 |
| 5 | 141 | 144 | 130 | 147 | 157 | 140 | 123 | 140 | 137 |
| 6 | 344 | 349 | 328 | 314 | 257 | 230 | 317 | 306 | 330 |
| 7 | 567 | 534 | 503 | 502 | 386 | 279 | 574 | 478 | 536 |
| 8 | 658 | 551 | 608 | 524 | 367 | 292 | 634 | 519 | 595 |
| 9 | 571 | 587 | 574 | 533 | 519 | 348 | 639 | 539 | 581 |
| 10 | 620 | 658 | 529 | 456 | 374 | 366 | 541 | 506 | 561 |
| 11 | 433 | 492 | 445 | 417 | 314 | 473 | 372 | 421 | 432 |
| 12 | 444 | 416 | 392 | 443 | 378 | 438 | 405 | 417 | 420 |
| 13 | 531 | 483 | 515 | 481 | 456 | 529 | 505 | 500 | 503 |
| 14 | 558 | 548 | 569 | 584 | 566 | 527 | 571 | 560 | 566 |
| 15 | 513 | 545 | 542 | 617 | 559 | 602 | 555 | 562 | 554 |
| 16 | 471 | 520 | 647 | 540 | 409 | 436 | 489 | 502 | 533 |
| 17 | 597 | 561 | 631 | 553 | 420 | 452 | 561 | 539 | 581 |
| 18 | 604 | 629 | 654 | 611 | 487 | 639 | 567 | 599 | 613 |
| 19 | 565 | 583 | 577 | 542 | 437 | 491 | 557 | 536 | 565 |
| 20 | 468 | 517 | 594 | 445 | 433 | 428 | 439 | 475 | 493 |
| 21 | 417 | 468 | 425 | 419 | 348 | 432 | 372 | 412 | 420 |
| 22 | 385 | 394 | 448 | 402 | 337 | 353 | 332 | 379 | 392 |
| 23 | 348 | 369 | 372 | 371 | 293 | 307 | 347 | 344 | 361 |
| 24 | 260 | 271 | 281 | 219 | 266 | 216 | 251 | 252 | 256 |
| **Totals** | 9,819 | 9,972 | 10,071 | 9,510 | 8,121 | 8,378 | 9,459 | **9,333** | **9,766** |

## Service Road, July 2019 ATC Survey

| Eastbound | Tues 2nd July | Weds 3rd July | Thurs 4th July | Friday 5th July | Sat 6th July | Sun 7th July | Mon 8th July | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 6 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 |
| 7 | 4 | 3 | 4 | 5 | 3 | 6 | 3 | 4 | 4 |
| 8 | 8 | 2 | 5 | 5 | 7 | 6 | 8 | 6 | 6 |
| 9 | 15 | 7 | 6 | 6 | 16 | 21 | 10 | 12 | 9 |
| 10 | 6 | 4 | 8 | 6 | 15 | 4 | 11 | 8 | 7 |
| 11 | 5 | 8 | 6 | 7 | 7 | 13 | 16 | 9 | 8 |
| 12 | 8 | 8 | 6 | 5 | 9 | 12 | 7 | 8 | 7 |
| 13 | 6 | 5 | 4 | 6 | 13 | 10 | 6 | 7 | 5 |
| 14 | 7 | 5 | 2 | 3 | 20 | 14 | 10 | 9 | 5 |
| 15 | 7 | 6 | 6 | 7 | 11 | 10 | 6 | 8 | 6 |
| 16 | 8 | 7 | 8 | 8 | 9 | 7 | 4 | 7 | 7 |
| 17 | 4 | 5 | 8 | 8 | 10 | 13 | 6 | 8 | 6 |
| 18 | 5 | 7 | 3 | 6 | 6 | 14 | 9 | 7 | 6 |
| 19 | 6 | 7 | 8 | 4 | 9 | 10 | 8 | 7 | 7 |
| 20 | 8 | 9 | 10 | 9 | 8 | 6 | 6 | 8 | 8 |
| 21 | 8 | 8 | 8 | 9 | 15 | 12 | 9 | 10 | 8 |
| 22 | 7 | 3 | 7 | 8 | 15 | 11 | 8 | 8 | 7 |
| 23 | 10 | 12 | 12 | 11 | 10 | 8 | 8 | 10 | 11 |
| 24 | 9 | 6 | 7 | 9 | 3 | 4 | 5 | 6 | 7 |
| **Totals** | 139 | 119 | 128 | 129 | 193 | 191 | 147 | **149** | **132** |

## Bath Road - Eastbound

| | Jul-00 | | Oct-10 | | Jul-19 | |
|---|---|---|---|---|---|---|
| | Average (all days) | Average (weekdays) | Average (all days) | Average (weekdays) | Average (all days) | Average (weekdays) |
| 00:00 | 77 | 63 | 101 | 84 | 151 | 148 |
| 01:00 | 49 | 40 | 49 | 38 | 70 | 64 |
| 02:00 | 34 | 29 | 47 | 40 | 61 | 56 |
| 03:00 | 40 | 42 | 46 | 45 | 66 | 69 |
| 04:00 | 104 | 123 | 92 | 90 | 140 | 137 |
| 05:00 | 304 | 383 | 202 | 220 | 306 | 330 |
| 06:00 | 913 | 1,156 | 371 | 433 | 478 | 536 |
| 07:00 | 1,150 | 1,429 | 463 | 579 | 519 | 595 |
| 08:00 | 1,078 | 1,250 | 496 | 629 | 539 | 581 |
| 09:00 | 940 | 986 | 422 | 500 | 506 | 561 |
| 10:00 | 870 | 829 | 342 | 371 | 421 | 432 |
| 11:00 | 843 | 800 | 372 | 399 | 417 | 420 |
| 12:00 | 788 | 755 | 450 | 467 | 500 | 503 |
| 13:00 | 807 | 813 | 515 | 530 | 560 | 566 |
| 14:00 | 787 | 759 | 543 | 555 | 562 | 554 |
| 15:00 | 804 | 777 | 448 | 470 | 502 | 533 |
| 16:00 | 871 | 832 | 494 | 549 | 539 | 581 |
| 17:00 | 925 | 855 | 547 | 613 | 599 | 613 |
| 18:00 | 825 | 753 | 500 | 521 | 536 | 565 |
| 19:00 | 675 | 571 | 420 | 433 | 475 | 493 |
| 20:00 | 441 | 363 | 364 | 377 | 412 | 420 |
| 21:00 | 318 | 267 | 354 | 361 | 379 | 392 |
| 22:00 | 259 | 243 | 349 | 360 | 344 | 361 |
| 23:00 | 155 | 140 | 169 | 164 | 252 | 256 |
| **Totals** | **14,059** | **14,255** | **8,156** | **8,829** | **9,333** | **9,766** |

# APPENDIX F: Junction Capacity Modelling

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462


For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk



**Filename:** A4-Site Access_Modelled as per TRL Instruction.j9
**Path:** H:_Planning 7\Current jobs\NCPHeathrow5.1\Modelling and TRICS
**Report generation date:** 16/03/2021 14:17:38

---



## Summary of junction performance

| | AM | | | | | | PM | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Network Residual Capacity | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Network Residual Capacity |
| | 2021 Network Peak | | | | | | | | | | | |
| Stream B-AC | D1 | 0.0 | 6.78 | 0.02 | A | 245 % | D2 | 0.0 | 6.89 | 0.01 | A | 254 % |
| Stream C-AB | | 0.0 | 0.00 | 0.00 | A | [Stream B-AC] | | 0.0 | 0.00 | 0.00 | A | [Stream B-AC] |

*Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.*

## File summary

### File Description

| | |
|---|---|
| **Title** | |
| **Location** | |
| **Site number** | |
| **Date** | 16/03/2021 |
| **Version** | |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | |
| **Jobnumber** | |
| **Enumerator** | MAYERBROWN2K\rkingston |
| **Description** | |

## Units

| Distance units | Speed units | Traffic units input | Traffic units results | Flow units | Average delay units | Total delay units | Rate of delay units |
|---|---|---|---|---|---|---|---|
| m | kph | Veh | PCU | perHour | s | -Min | perMin |

## Analysis Options

| Calculate Queue Percentiles | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|
| | ✓ | Delay | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Description | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|---|
| D1 | 2021 Network Peak | AM | A4 Eastbound and Car Park flows, bus lane excluded. | ONE HOUR | 07:45 | 09:15 | 15 |
| D2 | 2021 Network Peak | PM | A4 Eastbound and Car Park flows, bus lane excluded. | ONE HOUR | 16:45 | 18:15 | 15 |

## Analysis Set Details

| ID | Network flow scaling factor (%) |
|---|---|
| A1 | 100.000 |

# 2021 Network Peak, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | NCP Heathrow Access | T-Junction | One-way from A to C | | 0.09 | A |

### Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|---|---|---|---|
| Left | Normal/unknown | 245 | Stream B-AC |

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | A4 Bath Road Eastbound | | Major |
| B | Site Access | | Minor |
| C | A4 Bath Road Westbound | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 6.35 | ✓ | 0.00 | | | ✓ | |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|
| B | One lane | 4.89 | 250 | 75 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|
| B-A | 712 | 0.092 | 0.232 | 0.146 | 0.332 |
| B-C | 798 | 0.087 | 0.219 | - | - |
| C-B | 574 | 0.158 | 0.158 | - | - |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Description | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|---|
| D1 | 2021 Network Peak | AM | A4 Eastbound and Car Park flows, bus lane excluded. | ONE HOUR | 07:45 | 09:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|---|---|
| HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A | | ✓ | 604 | 100.000 |
| B | | ✓ | 9 | 100.000 |
| C | | ✓ | 0 | 100.000 |

# Origin-Destination Data

### Demand (Veh/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 10 | 594 |
| | B | 0 | 0 | 9 |
| | C | 0 | 0 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 30 |
| | B | 0 | 0 | 13 |
| | C | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.02 | 6.78 | 0.0 | A |
| C-AB | 0.00 | 0.00 | 0.0 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 07:45 - 08:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 8 | 670 | 0.011 | 8 | 0.0 | 6.140 | A |
| C-AB | 0 | 481 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 8 | | | 8 | | | |
| A-C | 581 | | | 581 | | | |

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 9 | 645 | 0.014 | 9 | 0.0 | 6.394 | A |
| C-AB | 0 | 463 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 9 | | | 9 | | | |
| A-C | 694 | | | 694 | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 11 | 611 | 0.018 | 11 | 0.0 | 6.782 | A |
| C-AB | 0 | 438 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 11 | | | 11 | | | |
| A-C | 850 | | | 850 | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 11 | 611 | 0.018 | 11 | 0.0 | 6.782 | A |
| C-AB | 0 | 438 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 11 | | | 11 | | | |
| A-C | 850 | | | 850 | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 9 | 645 | 0.014 | 9 | 0.0 | 6.394 | A |
| C-AB | 0 | 463 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 9 | | | 9 | | | |
| A-C | 694 | | | 694 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 8 | 670 | 0.011 | 8 | 0.0 | 6.140 | A |
| C-AB | 0 | 481 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 8 | | | 8 | | | |
| A-C | 581 | | | 581 | | | |

# 2021 Network Peak, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | NCP Heathrow Access | T-Junction | One-way from A to C | | 0.06 | A |

### Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|---|---|---|---|
| Left | Normal/unknown | 254 | Stream B-AC |

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Description | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|---|
| D2 | 2021 Network Peak | PM | A4 Eastbound and Car Park flows, bus lane excluded. | ONE HOUR | 16:45 | 18:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|---|---|
| HV Percentages | 2.00 |

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A | | ✓ | 631 | 100.000 |
| B | | ✓ | 6 | 100.000 |
| C | | ✓ | 0 | 100.000 |

## Origin-Destination Data

### Demand (Veh/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 4 | 627 |
| | B | 0 | 0 | 6 |
| | C | 0 | 0 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 22 |
| | B | 0 | 0 | 16 |
| | C | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.01 | 6.89 | 0.0 | A |
| C-AB | 0.00 | 0.00 | 0.0 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 16:45 - 17:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 5 | 672 | 0.008 | 5 | 0.0 | 6.264 | A |
| C-AB | 0 | 483 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 3 | | | 3 | | | |
| A-C | 576 | | | 576 | | | |

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 6 | 647 | 0.010 | 6 | 0.0 | 6.514 | A |
| C-AB | 0 | 465 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 4 | | | 4 | | | |
| A-C | 687 | | | 687 | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 8 | 613 | 0.013 | 8 | 0.0 | 6.894 | A |
| C-AB | 0 | 441 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 4 | | | 4 | | | |
| A-C | 842 | | | 842 | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 8 | 613 | 0.013 | 8 | 0.0 | 6.894 | A |
| C-AB | 0 | 441 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 4 | | | 4 | | | |
| A-C | 842 | | | 842 | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 6 | 647 | 0.010 | 6 | 0.0 | 6.514 | A |
| C-AB | 0 | 465 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 4 | | | 4 | | | |
| A-C | 687 | | | 687 | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 5 | 672 | 0.008 | 5 | 0.0 | 6.265 | A |
| C-AB | 0 | 483 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 3 | | | 3 | | | |
| A-C | 576 | | | 576 | | | |

## APPENDIX G: 2018 Pre-application TfL Response Letter

# Transport for London

Our ref: 18/3262

Marie Hodgson
Pick Everard
Halford House
Charles Street
Leicester LE1 1HA

*By email only*

**Transport for London**
City Planning

5 Endeavour Square
Westfield Avenue
Stratford
London E20 1JN

Phone 020 7222 5600
www.tfl.gov.uk

24th September 2018

Dear Marie

**Bath Road/Sipson Lane NCP Car Park, LB Hillingdon**

*Please note that the following comments represent the views of Transport for London officers and are made on a "without prejudice" basis. They should not be taken to represent an indication of any subsequent Mayoral decision in relation to a planning application based on the proposed scheme. These comments also do not necessarily represent the views of the Greater London Authority.*

I write in relation to your recent pre-application request for written advice on construction of an additional, left-in, left-out vehicular access onto Bath Road serving the existing long-term car park for Heathrow passengers. There are 630 spaces and 4 accessible-design spaces. Users are served by shuttle bus to/from Heathrow T2 and T3 which run every 20 minutes.

There are no changes proposed to the parking itself. Were there to be in the future or any other use of the site to be considered in the future, TfL's views would need to be sought and a further RSA appropriate to the level of traffic produced.

Thank you for supplying a 2010 Transport Assessment, a September 2018 TA Addendum; baseline information in a draft scope and two sets of new junction plans/swept paths.

**Location & Access**

The car park is site is located west of Sipson Way, a largely residential road leading to a disused police accommodation block to its north; to the east is a cutting dropping down to the M4 spur and to the south at grade is the A4 Bath Road, which has a central reservation and is elevated at this point to cross the A4. Currently access to the NCP Heathrow car park requires crossing land of the Park Inn Hotel at the other side of the cutting and using a narrow road bridge over the M4 spur to enter the car park. There was a secondary access from Sipson Way but the submission says it is now permanently closed; the reasons for this are not given.

There is a footway and segregated cycle way crossing the site frontage to Bath Road of about 4.5m wide and the adjacent nearside lane is open to buses, cyclists and taxis only (the bus lane). Around 30m to the west of the initial (2011) location you supplied for the access, and some 25m west from the alternative location for which you later supplied details in the TA Addendum, there is a bus stop in a lay-by, clear of the bus lane. Seven bus routes and a coach serve this eastbound stop. However there is no nearby pedestrian crossing of Bath Road to enable easy access to the westbound stop serving these routes. The nearest tube station, Heathrow T2&3, is served by Piccadilly Line and lies 1100m south – not within walking distance. The Public Transport Access Level (PTAL) of the site is 3.

TfL is the Highway Authority for A4 Bath Road and its structures and which forms part of the Transport for London Road Network (TLRN). The speed limit is 50mph and there is no stopping. TfL has additional responsibilities for road safety, keeping traffic moving, maintaining street trees and as a public transport provider. Comments on this planning proposal do not represent guidance under the Traffic Management Act 2004 for which separate approvals are required.

Highways England is responsible for the M4 spur. The narrow bridge over the M4 which currently is the access to the car park is assumed to be Hillingdon Council's asset or else privately owned. I confirm it is not the responsibility of TfL.

Strategic policy documents relevant to this application are the London Plan 2015 and the Draft London Plan (DLP) dated December 2017 which has recently passed the Minor Suggested Changes stage and carries material weight in the consideration of planning proposals; TfL seeks to reflect the thrust of its new standards, policies and visions (for example, Healthy Streets and "Vision Zero" (cycling collisions). Any formal planning submission will therefore need to take account of emerging policy as well as the Mayor's Transport Strategy (MTS) published in March this year.

**Case History**

A relocation of the entrance to the car park onto Bath Road was applied for in 2002 and refused due to concerns raised by TfL and the Council on its effect on the free flow of traffic; highway safety grounds, landscaping (loss of highway trees). This was overturned on appeal in 2004. At this time the Inspector seems to have had little detailed highway technical or design material let alone a Road Safety Audit in front of him. He did note the car park had no planning permission but that the Council considered that as more than 10 years had elapsed since the use had commenced that it was immune from enforcement action.

Permission was subsequently renewed for the Bath Road access in 2010, requiring a Road Safety Audit (RSA) and a s278 agreement under the Highways Act. The permission was not implemented, though a 2011 RSA was produced by TfL which highlighted three safety problems:

1. Inadequate entry / exit provision may increase potential for conflict
2. Inadequate side road provision for pedestrians
3. Access may increase collision severity if vehicles leave the carriageway leading to "potential difficulties with the provision of the access at the location proposed"

The report made (non-binding) recommendations as to how these problems could be addressed.

In addition the auditors identified potential (non safety) difficulties with the provision of the access at the location proposed as follows:

"It would appear that to facilitate the access, removal of two mature trees and relocation of a range of services will be required. There is a high possibility that the relocation of fibre-optic telecommunications will be required, due to the very close proximity of the site to telecoms and trafficmaster equipment. It is understood that relocation of these services may prove difficult and with significant expense should they be required".

Whether the RSA's advice deterred the owner from building the access is not known but in any case the permission has long since lapsed. The A4 at this location retains the same features/design, but the planning policy, transport and travel context has moved on and the appeal decision is now considered to have little weight by virtue of its age (14 years) and the renewed permission is now some 8 years old.

This letter consequently reviews the current context against your initial (re-submitted) access proposal (as per the 2004 and 2010 planning permissions). We refer also to the 7th September 18 TA addendum intention to move the access slightly west, the reason given being to avoid disturbing a number of utility boxes in the way of the previously consented location for the access and

the close proximity of the motorway bridge abutments. Significantly, this new proposal also involves removing the bus lane prior to the car park access, and re-introducing it as a taper after it. In the time allowed since receipt of your addendum proposals a full technical response to the latter could not be provided, however a summary of advice is given later and further more detailed advice can be provided subsequently.

In our correspondence you made brief mention that the applicant considers the narrow bridge over the motorway spur is deteriorating. No further evidence was supplied on the latter and TfL has no comment on this aspect although it may be prudent to raise with the owner and if an adopted road the relevant highway authority.

**Planning Policy, supporting documents**

The strategic policy context and transport standards for London are set out in the London Plan 2015 and the new draft London Plan of December 2017 (NDLP) which sets more challenging goals for active travel & public transport mode share increases (80% collectively by 2041), healthy streets and lower car parking levels/higher cycle parking levels**.** The site lies within an Air Quality Management area (Hillingdon).

Policy T2 Healthy Streets part D in the NDLP states development proposals should 1) demonstrate how they will deliver improvements that support the ten Healthy Streets Indicators in line with TfL Guidance. The development does not appear to deliver any and instead may adversely impact on these indicators.

Policy T3 of the NDLP part E states "Development proposals should support capacity, connectivity and other improvements to the bus network and ensure it can operate efficiently to, from and within developments, giving priority to buses and supporting infrastructure…" The development does not deliver such improvements and the removal of the bus lane would lead to less efficient operation of buses services.

Policy T4 Assessing and mitigating transport impacts part F states
"Development proposals should not increase road danger". Further information is required to enable assessment of compliance with this policy. The RSA was undertaken in 2011 and as is stated in the report has a maximum of 2 years shelf life (i.e. in this case to 2013). It also assessed only the original proposal and not the addendum scheme. An updated RSA for the option for the new access for which permission is to be sought is in my view essential to help to identify issues and how to mitigate them.

Policy G7 Trees & Woodlands part C states "Development proposals should ensure that, wherever possible, existing trees of quality are retained. If it is imperative that trees have to be removed, there should be adequate replacement based on the existing value of the benefits of the trees removed".

There is no evidence that this access scheme is essential such that the existing street trees (and indeed on site planting) should be removed as there is already a functioning access to the land use.

The London Plan 2015 similarly aims to maintain road safety, traffic flows, bus travel efficiency and assessment/identification of development impacts. Currently the submission relies on information supplied in a 2010 TA with an addendum to cover the alternative location of the proposed Bath Road access. Evidence supporting compliance with current Mayoral policy must form part of a re-submission, including inter alia assessment against the policies outlined above.

We advocate the use of data no more than 5 years old, new traffic surveys and a current baseline. As noted above the RSA has a shelf life of no longer than 2 years and must be undertaken again to support of any new application. One of many independent RSA practitioners approved by TfL should be used to produce it, alternatively TfL's road safety section itself can produce the RSA (current estimated cost is £800+VAT).

**Current Highway conditions**
Your proposal for a new access will be assessed in the context of more challenging, peak-time congested conditions than in 2010 let alone 2004 and the steady rise (save one year's plateau) of the daily average traffic count since 2012.

Meanwhile it is safe to assume that cycle flows on the A4's carriageway and its segregated path have increased at least as much as background levels in Greater London, which during the period from 2000 to 2012 experienced a doubling in the number of daily journeys made by bicycle to 580,000 and this remains the fastest-increasing mode of transport.

**Highway Safety**
In 2010 TfL objected to the proposal on the grounds of **unacceptable highway, safety and environmental impact to the TLRN.** This was because of its unsuitable location just 15m east of a bus layby and likely dangerous/disruptive movements that vehicles turning into the car park across the bus lane would generate and the loss of trees on the footway. I have consulted TfL Highway Design afresh on your two options (with and without bus lane discontinuity and looking at the swept paths for a vehicle no longer than the van design - presumed to equate to the shuttle bus). They conclude that this is not a good location for an access and raise the following considerable concerns which any submission is expected to address to TfL's satisfaction:

- *Proximity to the bus stop – this will affect visibility of those exiting, and there is a risk buses will pull away at the same time drivers move across to enter car park, causing a safety concern.*

- *This is of greater concern with the latter (addendum) design where the entrance/exit is further west and closer to the bus stop.*

- *Lack of acceleration and deceleration lanes in both design options– are drivers expected to enter the bus lane to decelerate and risk being fined for entering a bus lane to enter the car park? Then when exiting are drivers expected to take the risk and pull out into the offside lane and risk collisions/causing congestion or use bus lane to accelerate and risk being fined?*

    - *The DMRB states acceleration/deceleration lanes should be provided for roads where the design speed for the A road is 85kph (53mph) or above. Therefore whilst Bath Road is just under that speed I think in this scenario with the bus lane it could benefit from it.*

    - *Bath Lane is a 50mph which emphasises the need for an acceleration/deceleration lane.*

    - *The lack of these acceleration/deceleration lane may impede the vehicles that are following, could lead to congestion at busy times*

- *The original design (entrance/exit to the east) cuts through the vehicle restraint barrier (crash barrier) and so part of the barrier would need removing, but it is queried whether this would open up a safety concern that the barrier had previously solved (i.e. vehicles crashing onto the M4 Spur Road, damaging the bridge structure and/or colliding with pedestrians and cyclists). The recent design option is a small improvement in that it places the access further west and away from the start of the vehicle restraint system.*

- *The initial design option supplied doesn't detail any sort of break in the bus lane which would be necessary for vehicles to cross over it (legally). The subsequent design does break the line i.e. discontinue the bus lane but that does not remove the intervisibility/deceleration problems. It may also encourage traffic additional to the Flightpath customers/buses to use the lane and then not exit it when the bus lane tapers back in.*

- *Given the high frequency of buses – and coaches serving the airport- drivers may have a problem accessing the entrance without causing collisions, with either design option.*

    - *Motorbikes and cyclists are allowed in the bus lane too, is there an increased risk of collisions caused by drivers not seeing or judging the oncoming traffic speed well.*

- *If a bus is in the bus stop it may obscure drivers' (on Bath Road) visibility of vehicles trying to exit the car park, this will cause increase in collision risk.*

**Bus Operations**

TfL Buses consider it is likely that vehicle entering into the car park would be go into the path of buses which are pulling out from the bus stop; this would be conflict of movements and could be dangerous and at the least would slow buses down. Added to this, with the initial option, vehicles exiting the proposed vehicular crossover would attempt to either to pull out to the off-side lane to avoid being fined for being in the bus lane; or to stay in the bus lane illegally - both of these movements would be disruptive/ dangerous to other road users (including buses), and is therefore not acceptable.

The option proposed to discontinue the bus lane is also not supported: whilst this was suggested in the 2011 RSA this is less favoured now due to the likelihood of bus delays arising and the increased levels of traffic including cycling making it potentially more dangerous for lane crossing in a short length of derestricted lane. Furthermore the proposed removal of the bus lane put forward in the TA addendum for the alternative scheme would make it more difficult and dangerous for buses to get out of the bus stop. There mau be a misunderstanding of the RSA recommendation which is likely to have meant a break in the lane for the length of the deceleration facility, not the removal of the bus lane.

TfL will not allow the relocation of the bus stop for technical, practical and operational reasons and this seems to have been accepted from the start as there is no history of such a proposal.

**Walking and Cycling**

As noted above there is currently a vehicle restraint barrier between the bus lane and the cycleway/footway, to protect users from straying cars and also to stop cars from crashing over the bridge parapet onto the roads below or at the least a collision compromising the bridge structure. The original proposal for the new access requires the removal of this feature which also protects the safety of vulnerable road users alongside a 50mph road. This is not acceptable.

Added to this in both options cyclists and pedestrians would need to cross a wide bell-mouth formed by the new access and the associated turning radii in and out of the site. The proposed central reservation ('island') is indicated in plans is a poor substitute to currently where pedestrians and cyclists on the shared way do not have to contend with any vehicles on this part of the A4. which would help address that. The 2011 RSA noted that no provision is made to indicate the presence of the access to pedestrians, increasing the potential for conflict with vehicles ingressing and egressing. The recommendation then

included the addition of a ramped access and tactile paving, but neither this nor any other mitigation is featured on the designs submitted and furthermore such provision would only reduce a safety risk it would not prevent accidents nor would it provide an equivalent to the current conditions for pedestrians where there is no access.

Furthermore those cyclists who wish to use the carriageway would have reduced safety and comfort consequent upon having to share a lane with general traffic and that turning in and out of the proposed access.

**Landscaping and Arboriculture**
TfL's resistance to losing street trees was a factor in the objection in 2010. This position is now even stronger and the loss of two-three trees (new total not specified in the latest documents) is not accepted – even with the re-provision elsewhere. It should be noted that as owner of the trees a separate approval would be required before they could be removed or cut back.

The policy background is that in the time since 2010, the present Mayor has published targets to increase street trees across London, the latest is to increase tree cover in London by 10 per cent by 2050. In the Mayors Transport Strategy March 2018 an objective is that the Mayor, through TfL and the boroughs, will retain existing trees and plant new ones on the Transport for London Road Network (TLRN) and borough roads to protect tree canopy cover. Street tree numbers on the TLRN will be increased by 1 per cent every year between 2016 and 2025 https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf.

If the tree is healthy and poses no significant risk to the safe use of the highway then we contest its removal. If there is an arboricultural justification for the removal of a tree (i.e. the tree is in poor health and requires to be removed within the near future) and mitigation through replacement planting is an options within the design it may be considered. You have not provided nor are we aware of any such evidence in this case in respect of the street trees on Bath Road.

If despite this the local planning authority is minded to approve the proposal with tree loss, TFL will agree on the mitigation required with the developer. This will likely include the CAVAT value of any trees removed, costs associated to remove the tree(s) and replacement tree(s) costs. It would also include tree protection measures for remaining trees.

**Construction**
A Construction Management Plan would be requested to be applied as a condition should the Council be minded to approve an application. A framework

plan should be included in the TA. Careful consideration will need to be given to the stats and other particulars of the A4/M4 Spur Road bridge at the point of construction and an Asset Protection Agreement with TfL completed prior to implementation. An agreement may also be required with Highways England in respect of the M4 Spur Road.

**Overview**
As well as the technical objections, TfL also raises an in-principle objection to the proposal and its associated land-use because there is no real case for car parking here (remembering the use did not go through formal planning scrutiny) and furthermore there is an existing access with which the business is functioning and the and there seems no strong justification for adding another. Lastly, no design as proposed can fully mitigate the road safety risks the applicant would introduce with a new access onto the TLRN.

**Summary**
TfL would object to the grant of permission for either the original ( 2004/2010) access option or the new one put forward in the recent addendum to the TA involving alteration to the bus lane.

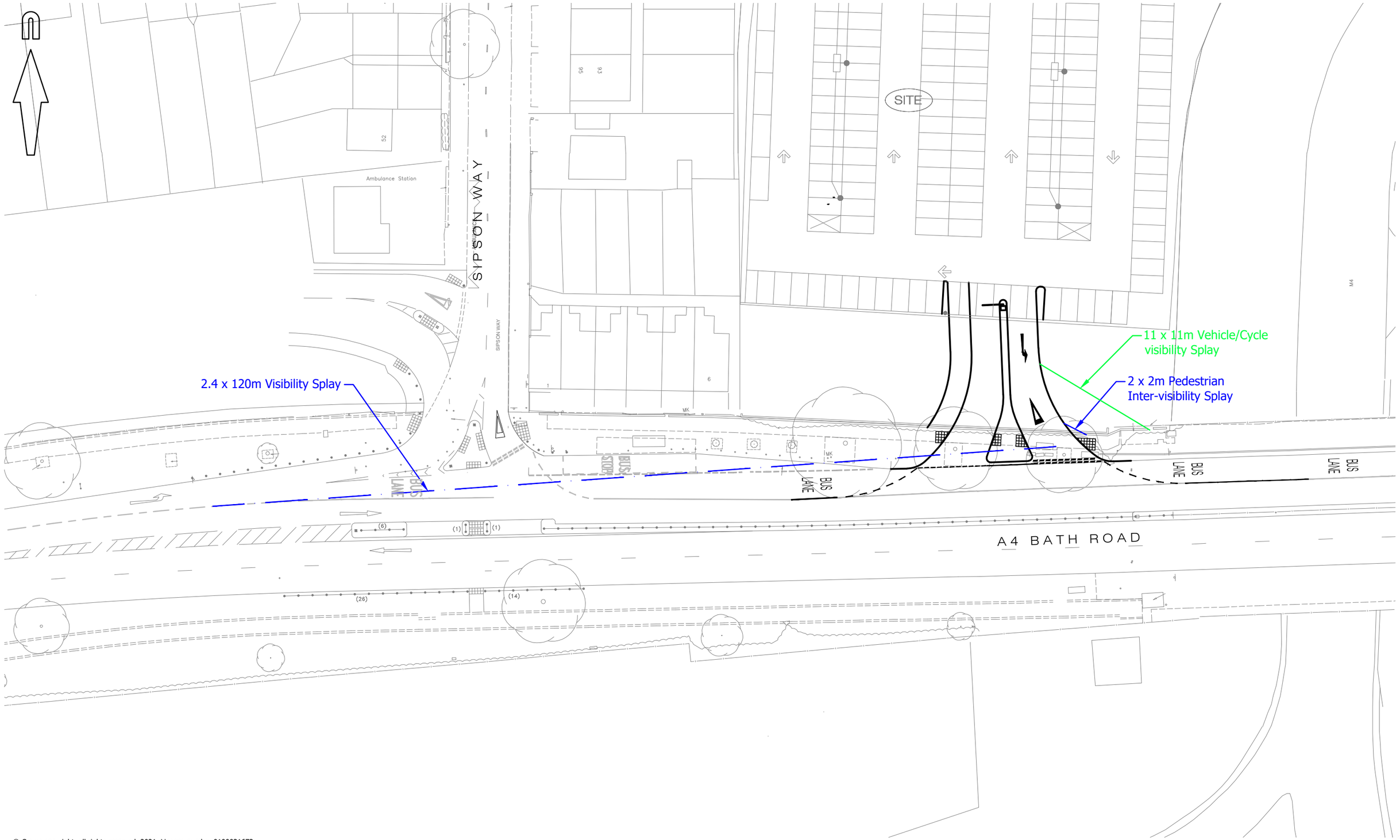
Should the applicant want to progress their proposals via a planning application they should carefully consider all the issues raised above, and include a new RSA amongst other supporting/explanatory evidence.

Please do not hesitate to contact Rachel Yorke on 020 3054 7030 or myself if you have any queries.

Yours sincerely

Lucinda Turner
**Director of spatial Planning**
Email: lucindaturner@tfl.gov.uk
Direct line: 020 3054 7133

# Appendix H: Visibility Splays






mayer brown

**Mayer Brown Limited**
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wokingoffice@mayerbrown.co.uk www.mayerbrown.co.uk

client
HEATHROW NCP PROPERTY LTD

project
NCP CAR PARK, A4 BATH ROAD, HEATHROW

title
VISIBILITY SPLAY FROM ACCESS

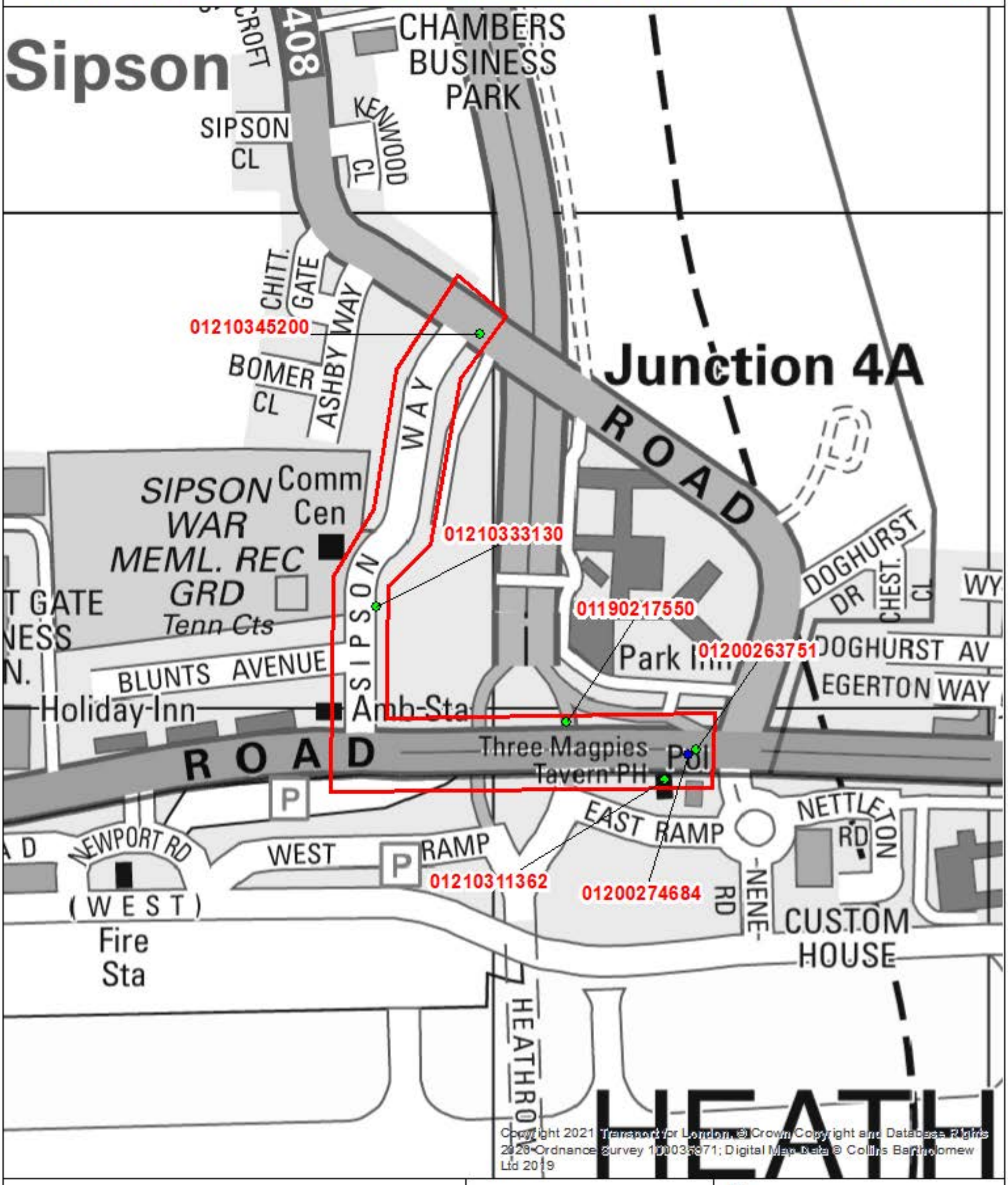
| scale | drawn by | checked by |
|---|---|---|
| 1:500 @ A3 | JME | AP |

| date | cad file | suitability | rev. |
|---|---|---|---|
| MAY 2021 | MBSK210222 | | P4 |

drawing number
MBSK210222-07

# APPENDIX B: TfL Accident Data

# Sipson Way Area Personal Injury Collisions 36 months to end of January 2022 (Provisional)






**Severity of collision**

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Slight | 1 (5) | 2 (0) | 3 (0) | 4 (0) | 5 (0) |
| Serious | 1 (1) | 2 (0) | 3 (0) | 4 (0) | 5 (0) |
| Fatal | 1 (0) | 2 (0) | 3 (0) | 4 (0) | 5 (0) |

N

0 0.075 0.15 Km

PRINTED BY:

COLLSTATS 3 - TfL City Planning

DATE:

08/06/2022

# Sipson Way Area Personal Injury Collisions 36 months to end of January 2022 (Provisional)

**SUMMARY OF COLLISIONS SELECTED**

| SITE REFERENCE AND DESCRIPTION | DATE PERIOD | COLLISION COUNT |
|---|---|---|
| SIPSON WAY/BATH ROAD GIS AREA B26 - SIPSON WAY AREA(P) | 36MTS TO JAN/2022 | 6 |

**THE DESCRIPTION OF HOW THE COLLISION OCCURRED AND THE CONTRIBUTORY FACTORS ARE THE REPORTING OFFICER'S OPINION AT THE TIME OF REPORTING AND MAY NOT BE THE RESULT OF EXTENSIVE INVESTIGATION. NOTE THAT SELF-REPORTED COLLISIONS (INTRODUCED IN SEPTEMBER 2016) MAY HAVE LIMITED INFORMATION. DESCRIPTIONS HAVE BEEN AUTOMATICALLY REDACTED TO REMOVE ALL PERSONALLY IDENTIFIABLE INFORMATION, BUT SHOULD YOU RECEIVE ANY IN ERROR PLEASE INFORM THE COLLISIONS DATA TEAM AS SOON AS PRACTICAL. SELF-REPORTED COLLISIONS INTRODUCED IN SEPTEMBER 2016 MAY HAVE LIMITED INFORMATION AND TEND TO BE LOWER IN QUALITY THAN POLICE REPORTS. THE INTRODUCTION OF ONLINE SELF-REPORTING HAS MADE IT EASIER FOR MEMBERS OF THE PUBLIC TO REPORT COLLISIONS TO THE POLICE. THERE HAVE BEEN YEAR ON YEAR INCREASES IN SELF-REPORTS SINCE THIS WAS INTRODUCED. THIS HAS CONTRIBUTED TO AN OVERALL INCREASE IN THE NUMBER OF CASUALTIES REPORTED ON LONDON'S ROADS.**

1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01190217550 | SUN 10/11/2019 17:08 | | DARK | SIPSON RD (STOP BP), NR JUNCT WTH BATH RD. | | | 26 LINK 13-16 | | 507572/176986 |
| SELF-REPORTED | | ROAD-DRY | WEATHER-FINE | ROUNDABOUT | OTHER JUN | AUTO SIG | NO XING FACIL IN 50M | | NONE IN 50M |
| NOT KNOWN HOW COLLISION OCCURRED | | | | | | | | | |
| CASUALTY | 001 (001) | (? YRS - UNKNOWN - REDA) | | SLIGHT | VEH/PILLION PAX | FRONT SEAT PASSENGER | | | |
| VEHICLE | 001 (000) | CAR<br>BT - DRV NOT CONTACTED | | (54 YRS - M - REDACT) | | UNKNOWN S/R | (MOVE UNKN)<br>N/S HIT FIRST | UNKNOWN S/R | |
| VEHICLE | 002 (000) | CAR<br>BT - DRV NOT CONTACTED | | (? YRS - UNKNOWN - REDACT) | | UNKNOWN S/R | (MOVE UNKN)<br>UNKNOWN S/R | J/P - UNKN<br>UNKNOWN S/R | |

2

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01200263751 | SUN 23/08/2020 13:10 | | LIGHT | A4, NR JUNCT WTH NENE RD. | | | 26 NODE 16 | | 507704/176959 |
| SELF-REPORTED | | UNKNOWN S/R | WEATHER-FINE | DUAL CWY | UNKNOWN S/R | UNKNOWN S/R | PEDN PHASE ATS | | UNKNOWN S/R |
| NOT KNOWN HOW COLLISION OCCURRED | | | | | | | | | |
| CASUALTY | 001 (001) | (47 YRS - M - REDA) | | SLIGHT | DRIVER/RIDER | | | | |
| CASUALTY | 002 (001) | (? YRS - UNKNOWN - REDA) | | SLIGHT | VEH/PILLION PAX | FRONT SEAT PASSENGER | | | |
| VEHICLE | 001 (000) | CAR<br>BT - DRV NOT CONTACTED | | (47 YRS - M - REDACT) | | UNKNOWN S/R | (MOVE UNKN)<br>BACK HIT FIRST | UNKNOWN S/R | |
| VEHICLE | 002 (000) | CAR<br>BT - DRV NOT CONTACTED | | (? YRS - UNKNOWN - REDACT) | UNKNOWN S/R | G/AHEAD - OTHER | (S TO N)<br>FRONT HIT FIRST | J/P - UNKN<br>UNKNOWN S/R | |

3

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01200274684 | MON 19/10/2020 23:00 | | DARK | BATH RD, 20 METRES WEST OF JUNCT WTH TUNNEL RD. | | | 26 NODE 16 | 507695/176953 |
| POLICE - AT SCENE | | ROAD-DRY | WEATHER-FINE | DUAL CWY | MULTI JUN | AUTO SIG | PEDN PHASE ATS | NONE IN 50M |
| NOT KNOWN HOW COLLISION OCCURRED | | | | | | | | |
| CASUALTY | 001 (001) | (30 YRS - M - REDA) | | SERIOUS | DRIVER/RIDER | | | |
| VEHICLE | 001 (000) | M/C 51-125CC<br>BT - NOT REQ | | (30 YRS - M - REDACT) | | O/TAKING - NEARSIDE | (E TO W)<br>FRONT HIT FIRST | J/P - UNKN<br>JCT APP |
| V001 | B | 409 (SWERVED) | | | | V001 A | 410 (LOSS OF CONTROL) | |

4

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01210311362 | THU 03/06/2021 23:17 | | DARK | BATH RD, NR JUNCT WTH NENE RD. | | | 26 LINK 13-16 | 507672/176928 |
| POLICE - AT SCENE | | ROAD-DRY | WEATHER-FINE | DUAL CWY | CROSSROADS | AUTO SIG | PEDN PHASE ATS | NONE IN 50M |
| NOT KNOWN HOW COLLISION OCCURRED | | | | | | | | |
| CASUALTY | 001 (001) | (30 YRS - F - REDA) | | SLIGHT | DRIVER/RIDER | | | |
| VEHICLE | 001 (000) | CAR<br>BT - NEG | | (30 YRS - F - REDACT) | | G/AHEAD - OTHER | (E TO W)<br>FRONT HIT FIRST | JCT CLEARED |
| VEHICLE | 002 (000) | OTHER VEH<br>BT - NEG | | (40 YRS - M - REDACT) | | U-TURN | (W TO W)<br>DID NOT IMPACT | JCT CLEARED |
| V001 | B | 405 (FAILED TO LOOK PROPERLY) | | | | V001 B | 203 (DEFECTIVE BRAKES) | |

5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01210333130 | SAT 11/09/2021 09:30 | | LIGHT | SIPSON WAY, NR JUNCT WTH SIPSON WAY. | | | 26 CELL 507000/177000 | | 507380/177103 |
| SELF-REPORTED | | UNKNOWN S/R | WEATHER-UNKNOWN | UNKNOWN | UNKNOWN S/R | UNKNOWN S/R | UNKNOWN S/R | | UNKNOWN S/R |
| NOT KNOWN HOW COLLISION OCCURRED | | | | | | | | | |
| CASUALTY | 001 (001) | (57 YRS - M - REDA) | | SLIGHT | DRIVER/RIDER | | | | |
| VEHICLE | 001 (000) | VAN/GOODS => 3.5T<br>BT - NOT PROVD | | (57 YRS - M - REDACT) | UNKNOWN S/R | G/AHEAD - OTHER | (N TO S)<br>FRONT HIT FIRST | J/P - UNKN<br>UNKNOWN S/R | |
| VEHICLE | 002 (000) | CAR<br>BT - DRV NOT CONTACTED | | (51 YRS - F - REDACT) | UNKNOWN S/R | REVERSING | (NW TO S)<br>UNKNOWN S/R | J/P - UNKN<br>UNKNOWN S/R | |

6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 01210345200 | SAT 20/11/2021 16:50 | | DARK | SIPSON RD, NR JUNCT WTH SIPSON WAY. | | | 26 LINK 16-29 | | 507485/177378 |
| SELF-REPORTED | | UNKNOWN S/R | WEATHER-UNKNOWN | SINGLE CWY | T/STAG JUN | GIVEWAY /UNCONT | NO XING FACIL IN 50M | | NONE IN 50M |
| NOT KNOWN HOW COLLISION OCCURRED | | | | | | | | | |
| CASUALTY | 001 (001) | (79 YRS - M - REDA) | | SLIGHT | PEDESTRIAN | UNKNOWN | FROM DRIVERS N/SIDE | | |
| VEHICLE | 001 (000) | CAR<br>BT - DRV NOT CONTACTED | | (? YRS - UNKNOWN - REDACT) | | TURNING - LEFT | (N TO SE)<br>FRONT HIT FIRST | J/P - UNKN<br>JCT CLEARED | |

# Sipson Way Area Personal Injury Collisions 36 months to end of January 2022 (Provisional)

Summary of Collisions Selected

| Site Reference and Description | Date Period | Collision Count |
|---|---|---|
| Sipson Way/Bath Road GIS AREA B26 - Sipson Way Area(P) | 36MTS TO Jan/2022 | 6 |

**The description of how the collision occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation. Note that self-reported collisions (introduced in September 2016) may have limited information. Descriptions have been automatically redacted to remove all personally identifiable information, but should you receive any in error please inform the Collisions Data Team as soon as practical. Self-reported collisions introduced in September 2016 may have limited information and tend to be lower in quality than police reports. The introduction of online self-reporting has made it easier for members of the public to report collisions to the police. There have been year on year increases in self-reports since this was introduced. This has contributed to an overall increase in the number of casualties reported on London's roads.**

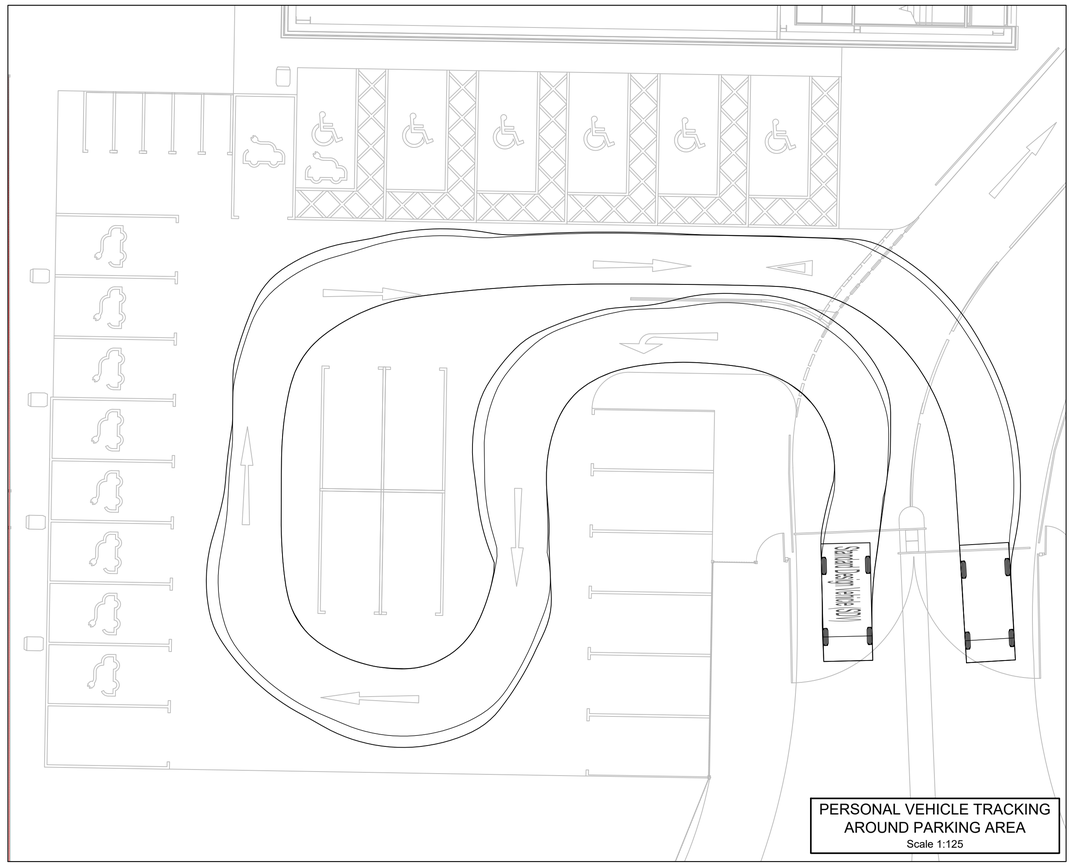
| | | |
|---|---|---|
| Pedestrian | 1 | 17% |
| Wet | 0 | 0% |
| Dark | 4 | 67% |

| | | |
|---|---|---|
| Fatal | 0 | 0% |
| Serious | 1 | 17% |
| Slight | 5 | 83% |

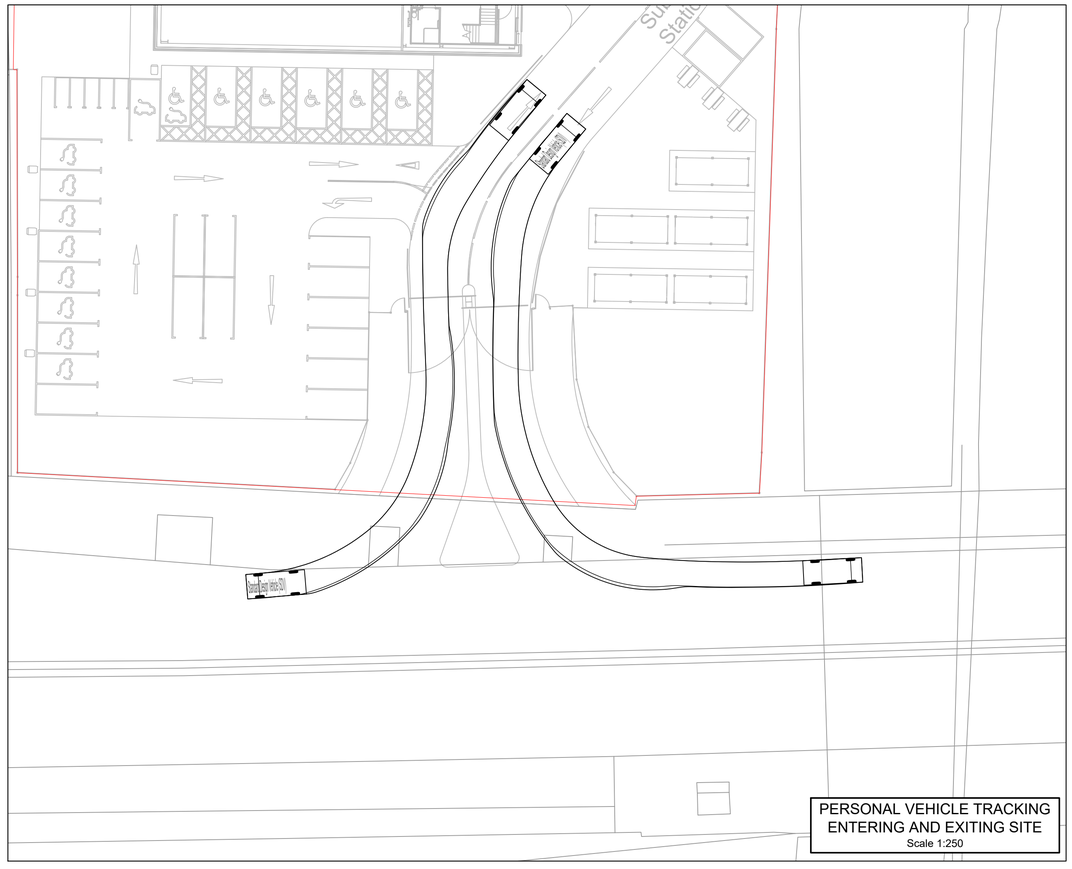
Please note that these figures represent the number of collisions that resulted in each type of casualty.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| **Reference** | 01200263751 | 01210333130 | 01190217550 | 01200274684 | 01210345200 | 01210311362 |
| **Day** | SUNDAY | SATURDAY | SUNDAY | MONDAY | SATURDAY | THURSDAY |
| **Date** | 23/08/2020 | 11/09/2021 | 10/11/2019 | 19/10/2020 | 20/11/2021 | 03/06/2021 |
| **Time** | 13:10 | 09:30 | 17:08 | 23:00 | 16:50 | 23:17 |
| **Light Conds** | LIGHT | LIGHT | DARK | DARK | DARK | DARK |
| **Road Surface** | UNKNOWN | UNKNOWN | DRY | DRY | UNKNOWN | DRY |
| **Severity** | (S/R) SLIGHT | (S/R) SLIGHT | SLIGHT | SERIOUS | (S/R) SLIGHT | SLIGHT |
| **Conflict** | | | | | | |
| **Ped Location** | | | | | 0 | |
| **Contributory** (* denotes pre-2005) | | | | 409 V001 B<br>410 V001 A | | 405 V001 B<br>203 V001 B |
| **Easting/Northing** | 507704 176959 | 507380 177103 | 507572 176986 | 507695 176953 | 507485 177378 | 507672 176928 |

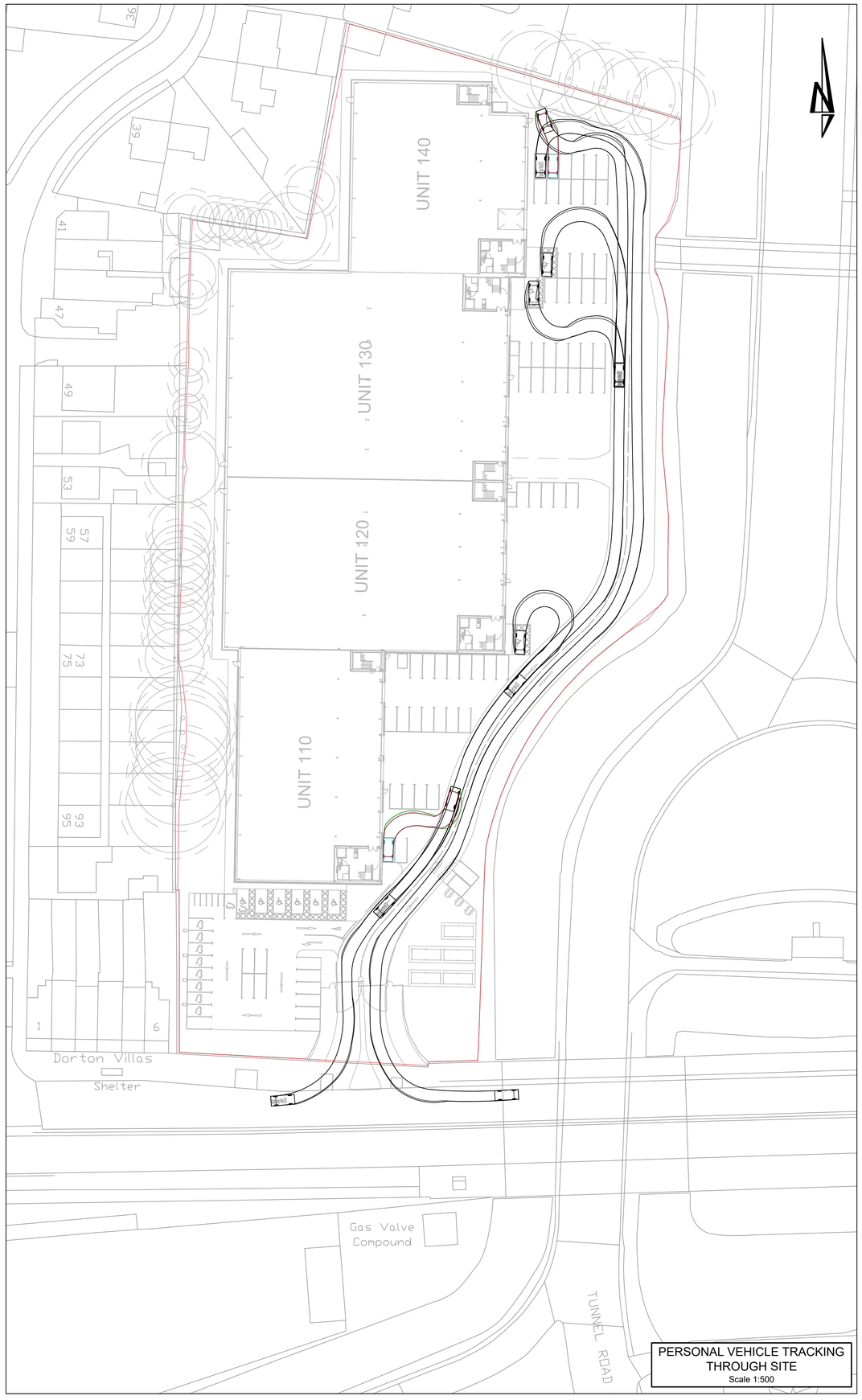
# APPENDIX C: Vehicle Swept Path Analysis



PERSONAL VEHICLE TRACKING
AROUND PARKING AREA
Scale 1:125

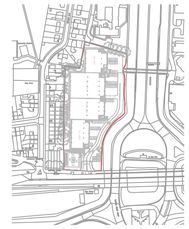



PERSONAL VEHICLE TRACKING
ENTERING AND EXITING SITE
Scale 1:250




PERSONAL VEHICLE TRACKING
THROUGH SITE
Scale 1:500

KEY PLAN



NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
2. The DWG file is issued for the purposes of coordination only and do not represent formal drawing issue and are not to be reprinted in any form. Formal issue of drawings is via DWF, Adobe PDF files and/or hard copies and their associated information issue sheets.
3. Note that all care has been taken with the export of DWG files and their content, but we recommend that you make due dimensional checks before using any DWG file information. Any errors found are to be reported to Hydrock immediately.
4. In the event of any contradiction between this drawing and the specification, then the contractor shall seek clarification from the engineer before proceeding.
5. Refer to landscape architects drawings for extent of external surfaces and kerbing.
6. The landscape architect / architect is responsible for providing setting out of the proposed site layout.
7. Contains OS Mapping Data made available under Open Government Licence v3.0, Crown Copyright
8. Site layout from drawing 5110-CA-00-00-DR-A-00060 Rev P5 dated 24th June 2022 by Chetwoods.


| Standard Design Vehicle (SDV) | |
|---|---|
| Overall Length | 4.800m |
| Overall Width | 2.000m |
| Overall Body Height | 1.950m |
| Min Body Ground Clearance | 0.100m |
| Track Width | 2.000m |
| Lock to lock time | 4.00s |
| Wall to Wall Turning Radius | 6.000m |

| | | | | | | |
|---|---|---|---|---|---|---|
| P03 | REVISED TO SUIT UPDATED SITE PLAN | | | | | |
| | O.CHARD | 28.06.22 | C.MACHUGH | 28.06.22 | T.KING | 28.06.22 |
| P02 | SITE PLAN UPDATED | | | | | |
| | O.CHARD | 07.06.22 | C.MACHUGH | 07.06.22 | T.KING | 07.06.22 |
| P01 | PRELIMINARY ISSUE | | | | | |
| | O.CHARD | 26.05.22 | C.MACHUGH | 26.05.22 | T.KING | 26.05.22 |
| REV | REVISION NOTES/COMMENTS | | | | | |
| | DRAWN BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |

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BS1 4RW
t: +44 (0)117 945 9225
e: bristolcentral@hydrock.com

CLIENT

aprirose | real estate investment

PROJECT

APRIROSE NCP FLIGHTPATH HEATHROW

TITLE

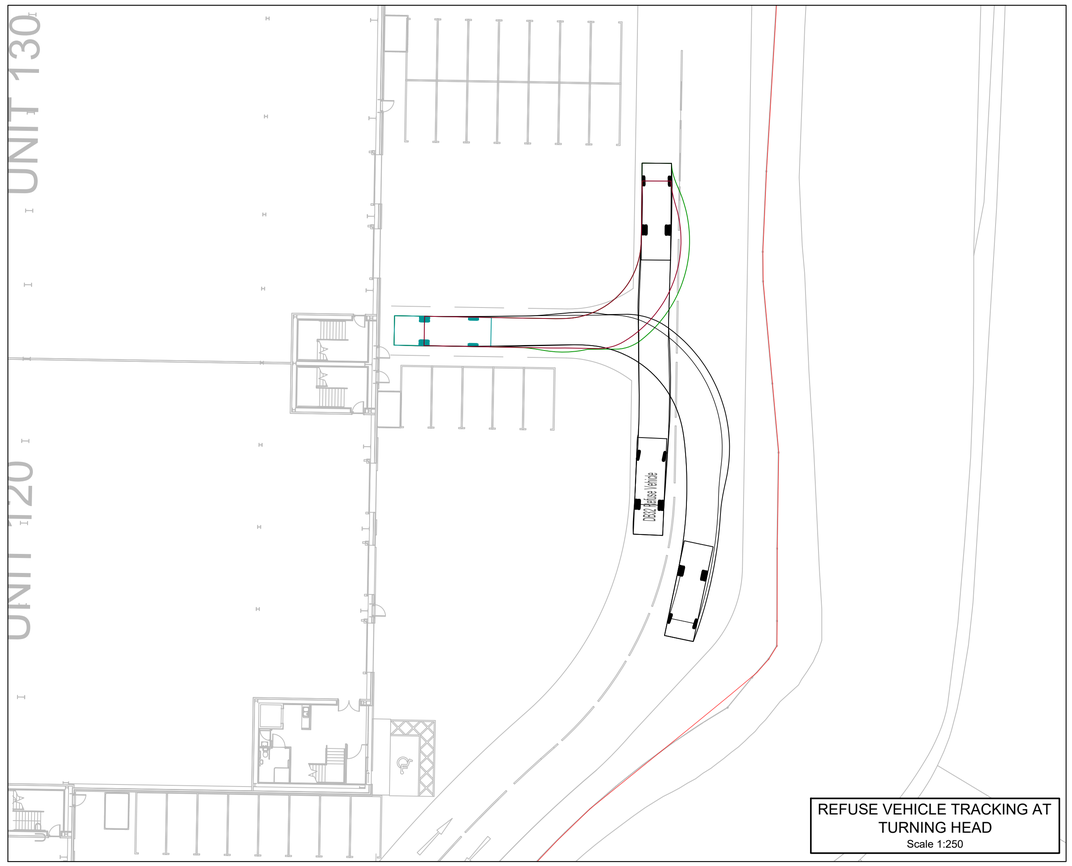
VEHICLE TRACKING - SHEET 1
PERSONAL VEHICLE

| HYDROCK PROJECT NO. | SCALE @ A1 |
|---|---|
| C-23795-C | AS SHOWN |

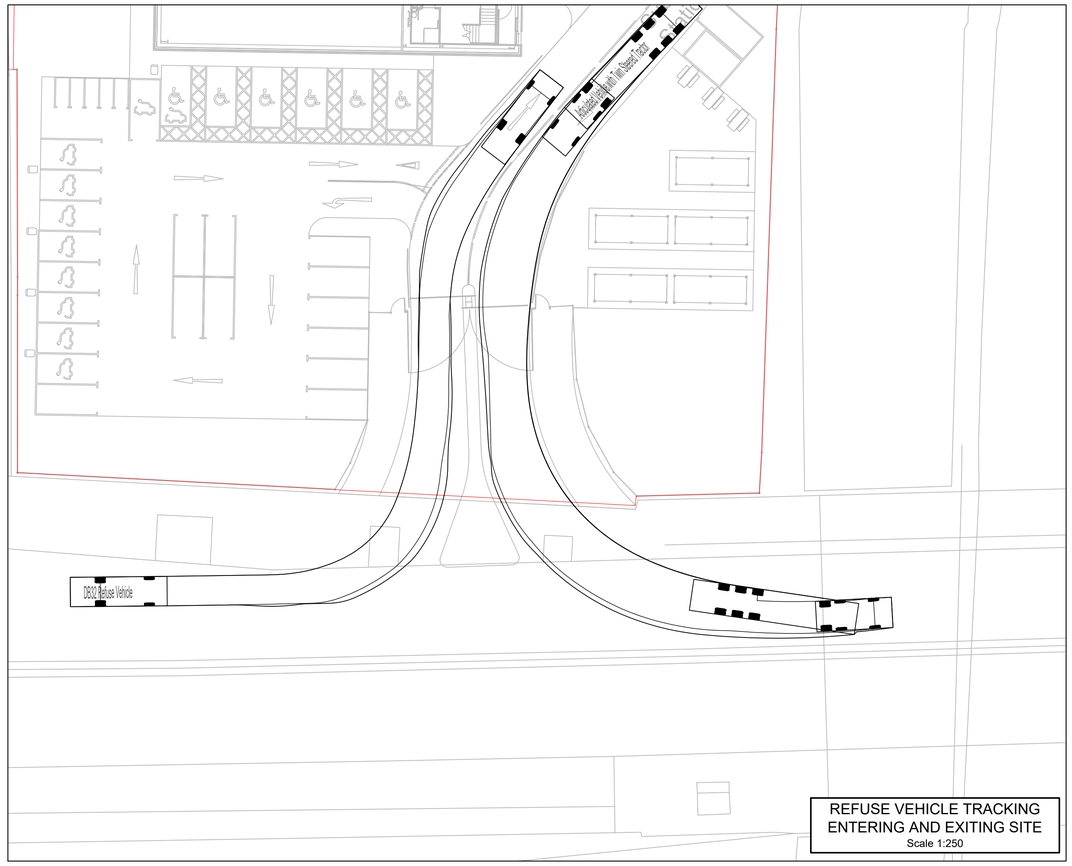
| STATUS DESCRIPTION | STATUS |
|---|---|
| ISSUED FOR INFORMATION | S2 |

DRAWING NO. (PROJECT CODE-ORGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER)
23795-HYD-00-ZZ-DR-C-7310

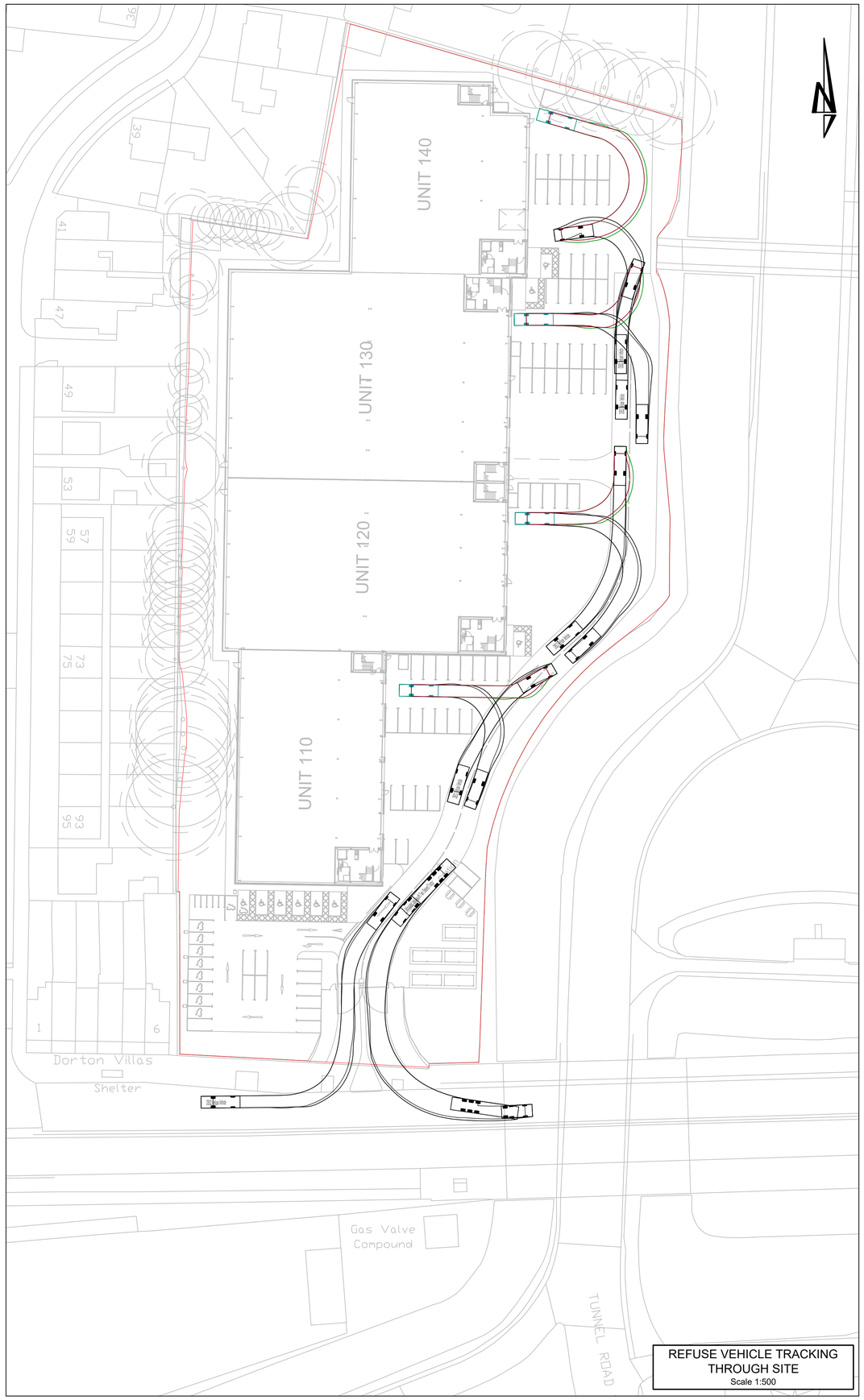
REVISION
P03




REFUSE VEHICLE TRACKING AT TURNING HEAD
Scale 1:250

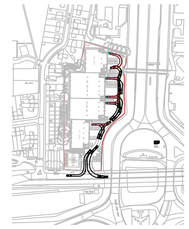



REFUSE VEHICLE TRACKING ENTERING AND EXITING SITE
Scale 1:250




REFUSE VEHICLE TRACKING THROUGH SITE
Scale 1:500

KEY PLAN



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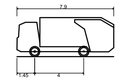
8. Site layout from drawing 5110-CA-00-00-DR-A-00060 Rev P5 dated 24th June 2022 by Chetwoods.




| DB32 Refuse Vehicle | |
|---|---|
| Overall Length | 7.900m |
| Overall Width | 2.400m |
| Overall Body Height | 3.183m |
| Min Body Ground Clearance | 0.388m |
| Max Track Width | 2.400m |
| Lock to lock time | 6.00s |
| Kerb to Kerb Turning Radius | 9.625m |

| | | | | | | |
|---|---|---|---|---|---|---|
| P03 | REVISED TO SUIT UPDATED SITE PLAN | | | | | |
| | O.CHARD | 28.06.22 | C.MACHUGH | 28.06.22 | T.KING | 28.06.22 |
| P02 | UPDATED SITE PLAN | | | | | |
| | O.CHARD | 07.06.22 | C.MACHUGH | 07.06.22 | T.KING | 07.06.22 |
| P01 | PRELIMINARY ISSUE | | | | | |
| | O.CHARD | 26.05.22 | C.MACHUGH | 26.05.22 | T.KING | 26.05.22 |
| REV | REVISION NOTES/COMMENTS | | | | | |
| | DRAWN BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |

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PROJECT

APRIROSE NCP FLIGHTPATH HEATHROW

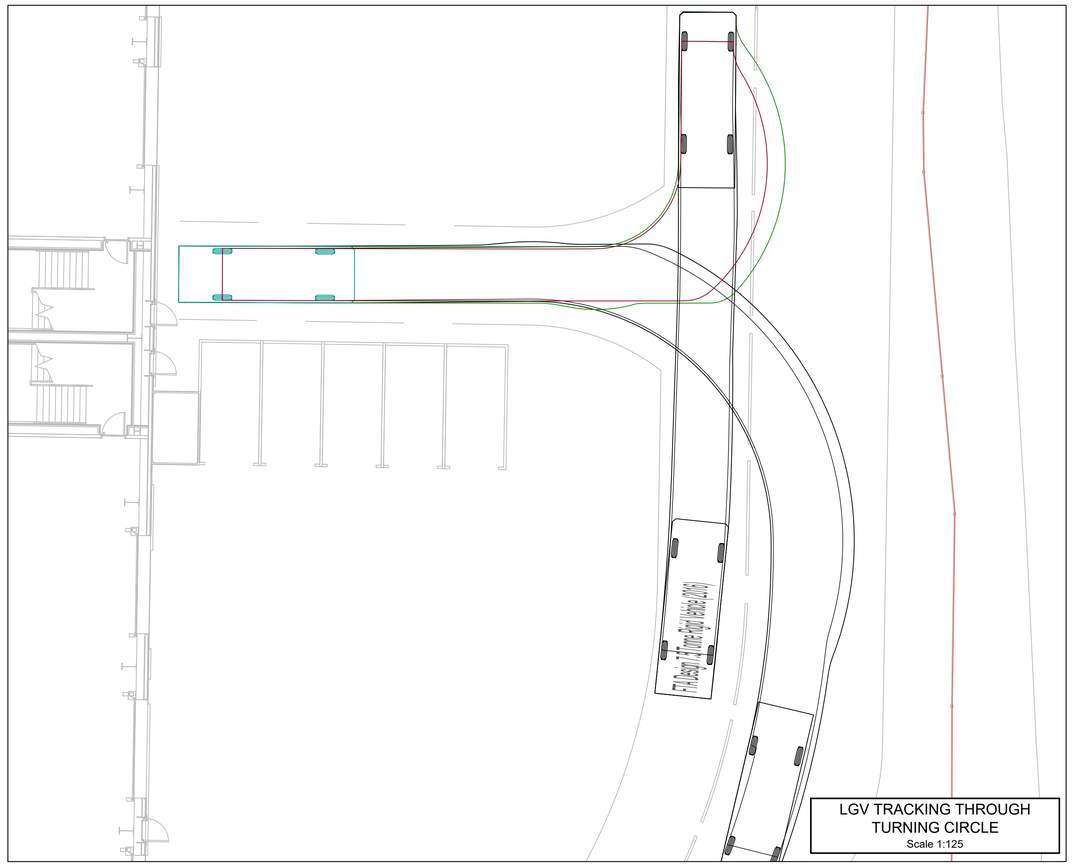
TITLE

VEHICLE TRACKING - SHEET 2
REFUSE VEHICLE

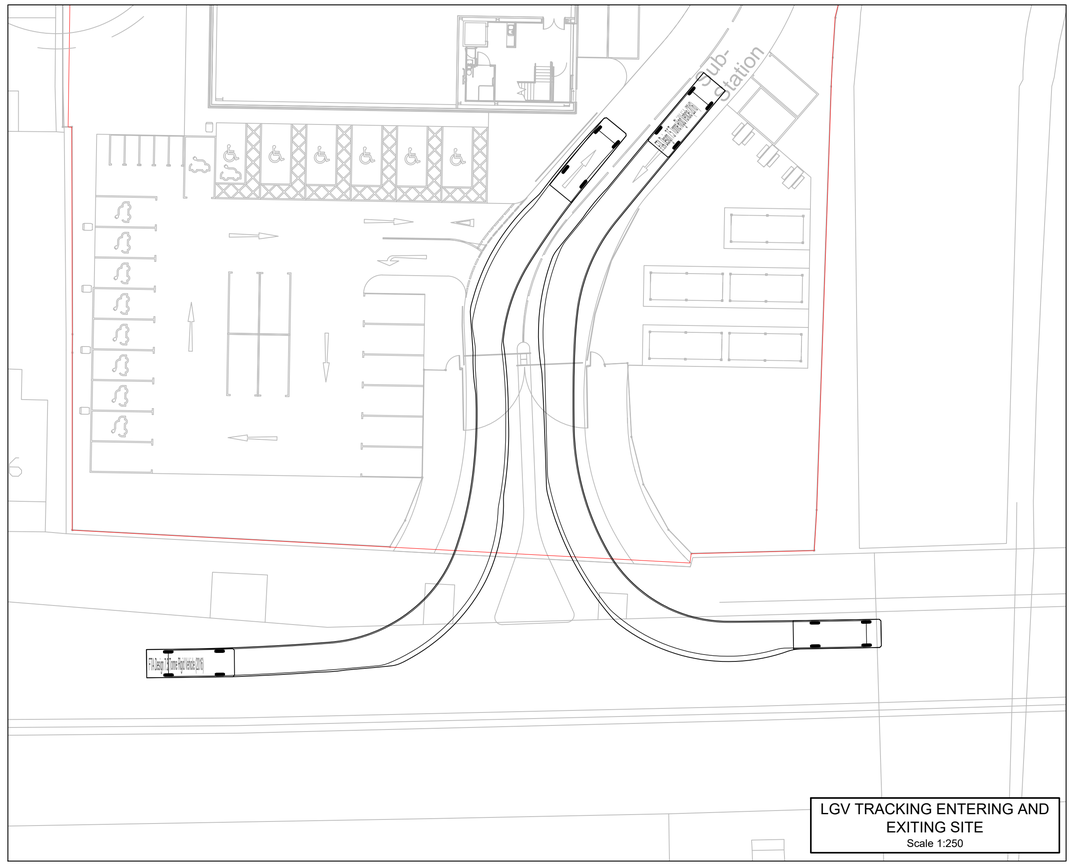
| HYDROCK PROJECT NO. | SCALE @ A1 |
|---|---|
| C-23795-C | AS SHOWN |

| STATUS DESCRIPTION | STATUS |
|---|---|
| ISSUED FOR INFORMATION | S2 |

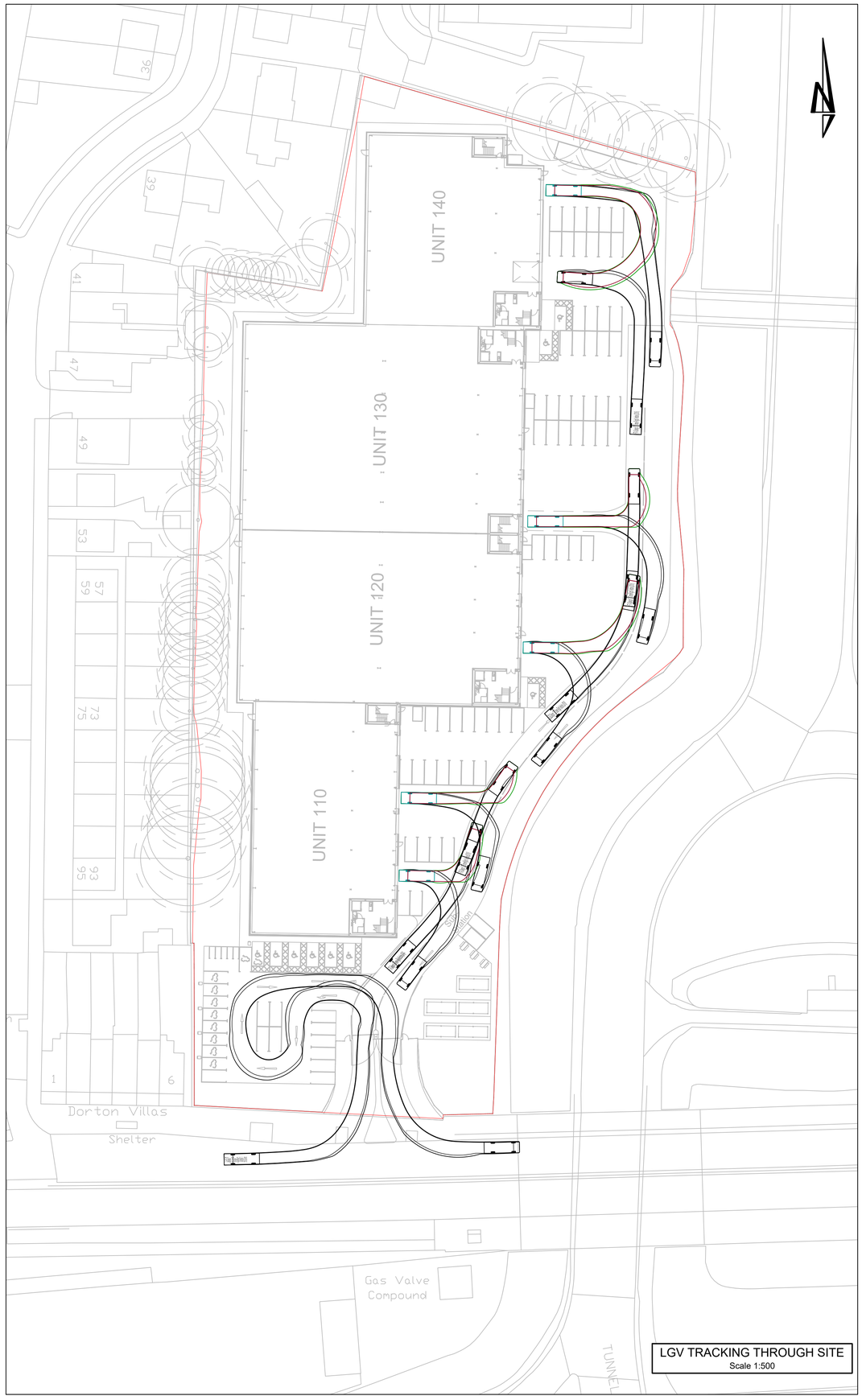
| DRAWING NO. (PROJECT CODE-ORGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER) | REVISION |
|---|---|
| 23795-HYD-00-ZZ-DR-C-7311 | P03 |




LGV TRACKING THROUGH TURNING CIRCLE
Scale 1:125

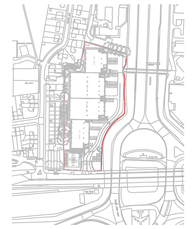



LGV TRACKING ENTERING AND EXITING SITE
Scale 1:250



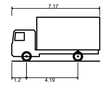

LGV TRACKING THROUGH SITE
Scale 1:500

KEY PLAN



NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
2. The DWG file is issued for the purposes of coordination only and do not represent formal drawing issue and are not to be reprinted in any form. Formal issue of drawings is via DWF, Adobe PDF files and/or hard copies and their associated information issue sheets.
3. Note that all care has been taken with the export of DWG files and their content, but we recommend that you make due dimensional checks before using any DWG file information. Any errors found are to be reported to Hydrock immediately.
4. In the event of any contradiction between this drawing and the specification, then the contractor shall seek clarification from the engineer before proceeding.
5. Refer to landscape architects drawings for extent of external surfaces and kerbing.
6. The landscape architect / architect is responsible for providing setting out of the proposed site layout.
7. Contains OS Mapping Data made available under Open Government Licence v3.0, Crown Copyright
8. Site layout from drawing 5110-CA-00-00-DR-A-00060 Rev P5 dated 24th June 2022 by Chetwoods.




| FTA Design 7.5 Tonne Rigid Vehicle (2016) | |
|---|---|
| Overall Length | 7.170m |
| Overall Width | 2.300m |
| Overall Body Height | 3.580m |
| Min Body Ground Clearance | 0.375m |
| Track Width | 2.120m |
| Lock to lock time | 3.00s |
| Kerb to Kerb Turning Radius | 7.000m |

| REV | | | | | | |
|---|---|---|---|---|---|---|
| P03 | REVISED TO SUIT UPDATED SITE PLAN | | | | | |
| | O.CHARD | 28.06.22 | C.MACHUGH | 28.06.22 | T.KING | 28.06.22 |
| P02 | UPDATED SITE PLAN | | | | | |
| | O.CHARD | 07.06.22 | C.MACHUGH | 07.06.22 | T.KING | 07.06.22 |
| P01 | PRELIMINARY ISSUE | | | | | |
| | O.CHARD | 26.05.22 | C.MACHUGH | 26.05.22 | T.KING | 26.05.22 |
| REV | REVISION NOTES/COMMENTS | | | | | |
| | DRAWN BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |

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PROJECT

APRIROSE NCP FLIGHTPATH HEATHROW

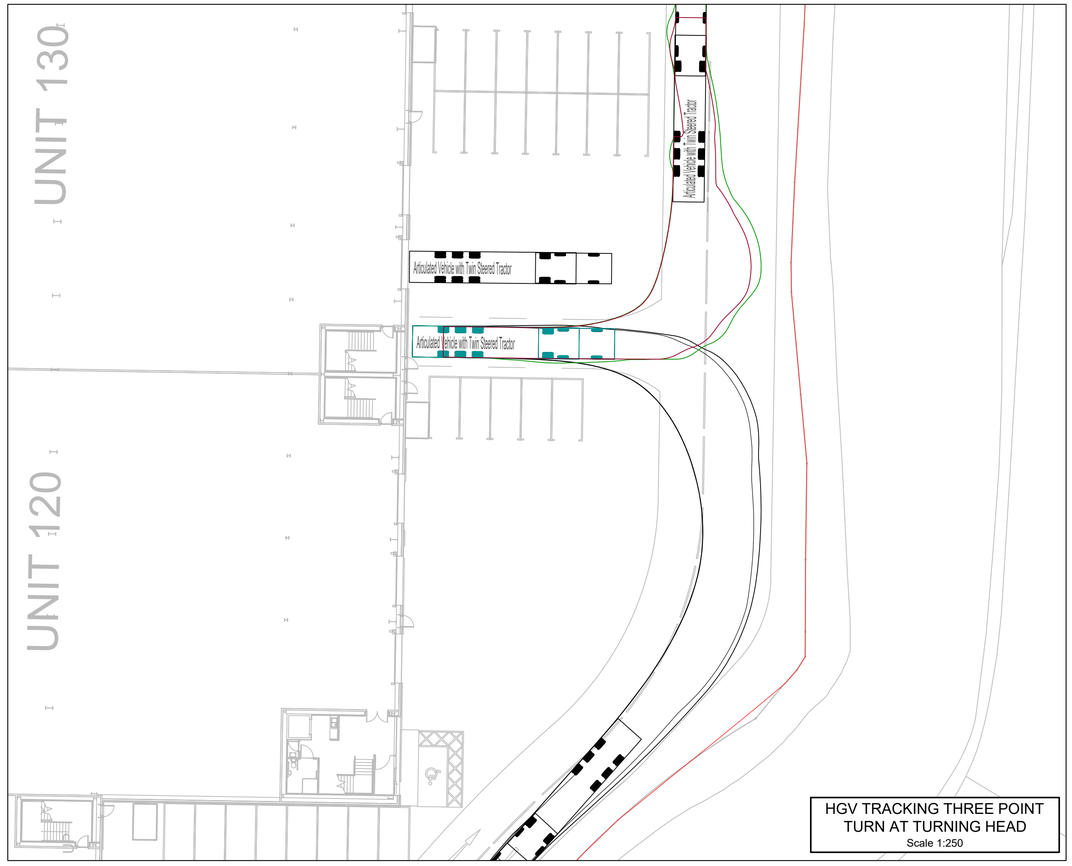
TITLE

VEHICLE TRACKING - SHEET 3
LIGHT GOODS VEHICLE

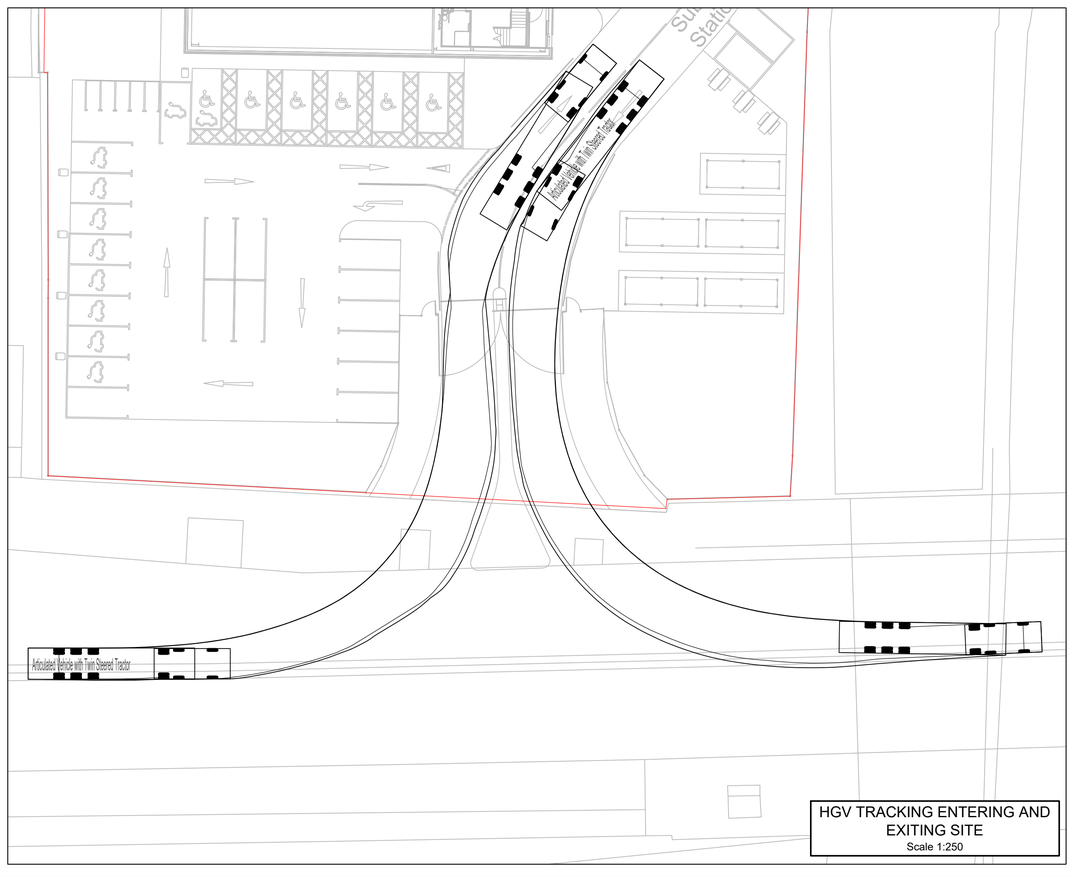
| HYDROCK PROJECT NO. | SCALE @ A1 |
|---|---|
| C-23795-C | AS SHOWN |

| STATUS DESCRIPTION | STATUS |
|---|---|
| ISSUED FOR INFORMATION | S2 |

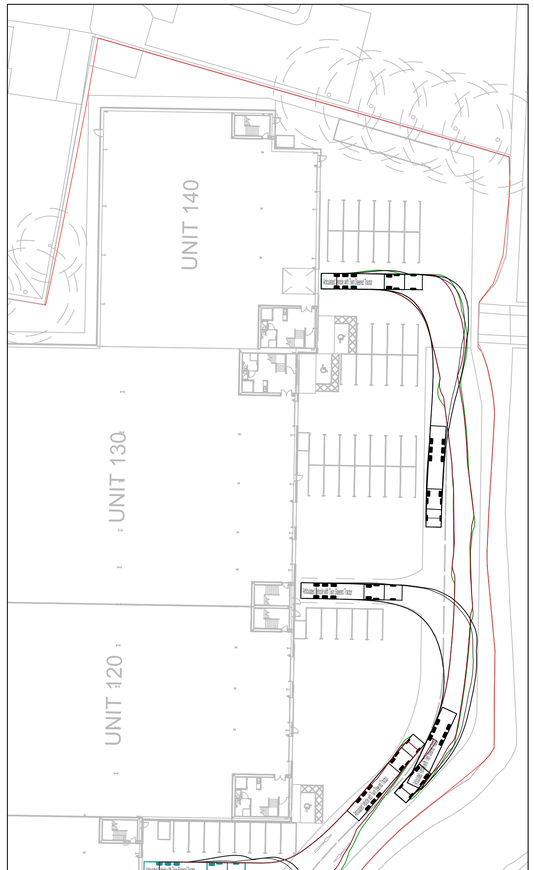
| DRAWING NO. (PROJECT CODE-ORGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER) | REVISION |
|---|---|
| 23795-HYD-00-ZZ-DR-C-7312 | P03 |



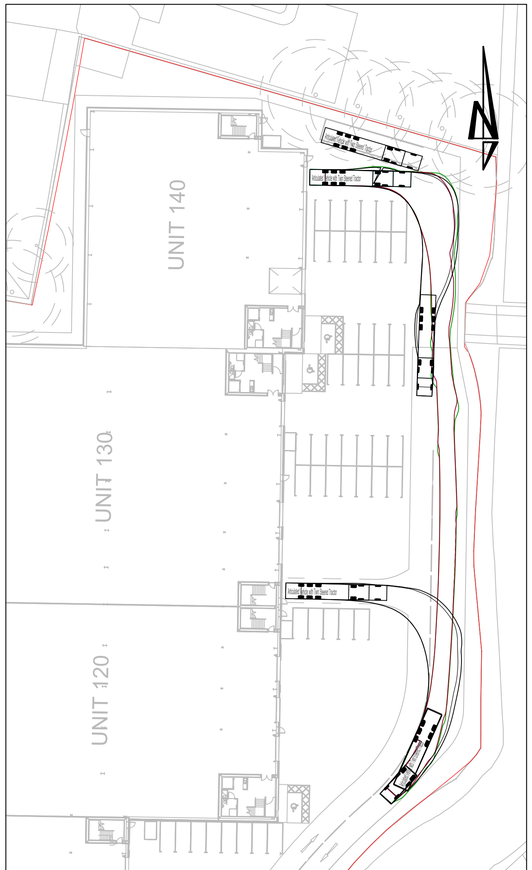

HGV TRACKING THREE POINT TURN AT TURNING HEAD
Scale 1:250




HGV TRACKING ENTERING AND EXITING SITE
Scale 1:250

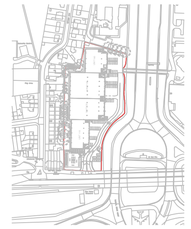



HGV TRACKING ACCESS TO LOADING DOCKS
Scale 1:500




HGV TRACKING REVERSING TO NORTHERN LOADING DOCK
Scale 1:500

KEY PLAN



NOTES

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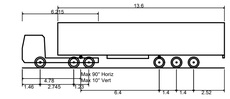
6. The landscape architect / architect is responsible for providing setting out of the proposed site layout.
7. Contains OS Mapping Data made available under Open Government Licence v3.0, Crown Copyright
8. Site layout from drawing 5110-CA-00-00-DR-A-00060 Rev P5 dated 24th June 2022 by Chetwoods.




Articulated Vehicle with Twin Steered Tractor

| | |
|---|---|
| Overall Length | 16.500m |
| Overall Width | 2.550m |
| Overall Body Height | 3.691m |
| Min Body Ground Clearance | 0.426m |
| Max Track Width | 2.500m |
| Lock to lock time | 6.00s |
| Kerb to Kerb Turning Radius | 6.987m |

| REV | | | | | | |
|---|---|---|---|---|---|---|
| | REVISION NOTES/COMMENTS | | | | | |
| | DRAWN BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |
| P04 | REVISED TO SUIT UPDATED SITE PLAN | | | | | |
| | O.CHARD | 28.06.22 | C.MACHUGH | 28.06.22 | T.KING | 28.06.22 |
| P03 | REVISED TO SUIT UPDATE SITED PLAN | | | | | |
| | O.CHARD | 09.06.22 | C.MACHUGH | 09.06.22 | T.KING | 09.06.22 |
| P02 | UPDATED SITE PLAN | | | | | |
| | O.CHARD | 07.06.22 | C.MACHUGH | 07.06.22 | T.KING | 07.06.22 |
| P01 | PRELIMINARY ISSUE | | | | | |
| | O.CHARD | 26.05.22 | C.MACHUGH | 26.05.22 | T.KING | 26.05.22 |

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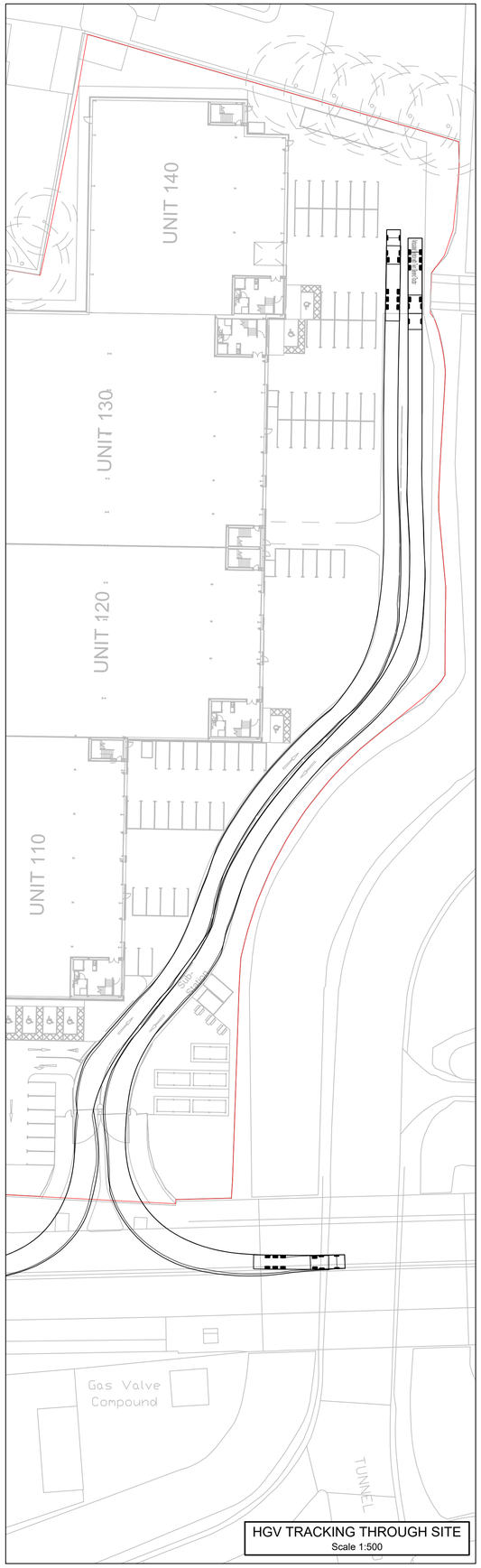
PROJECT

APRIROSE NCP FLIGHTPATH HEATHROW

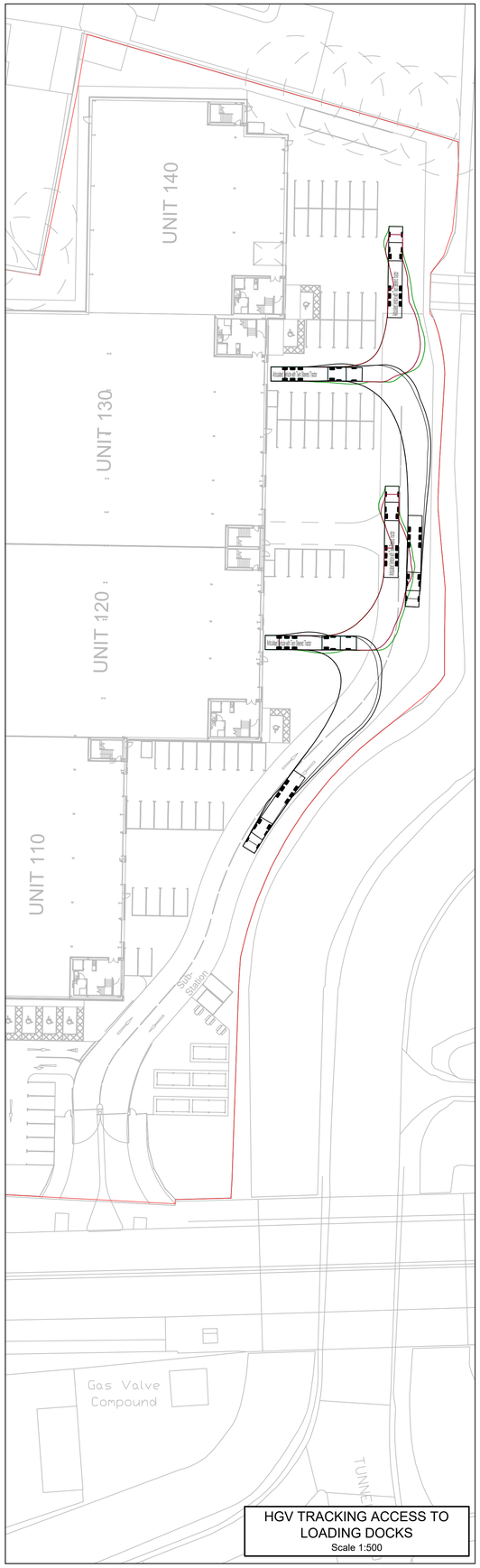
TITLE

VEHICLE TRACKING - SHEET 4
HEAVY GOODS VEHICLE

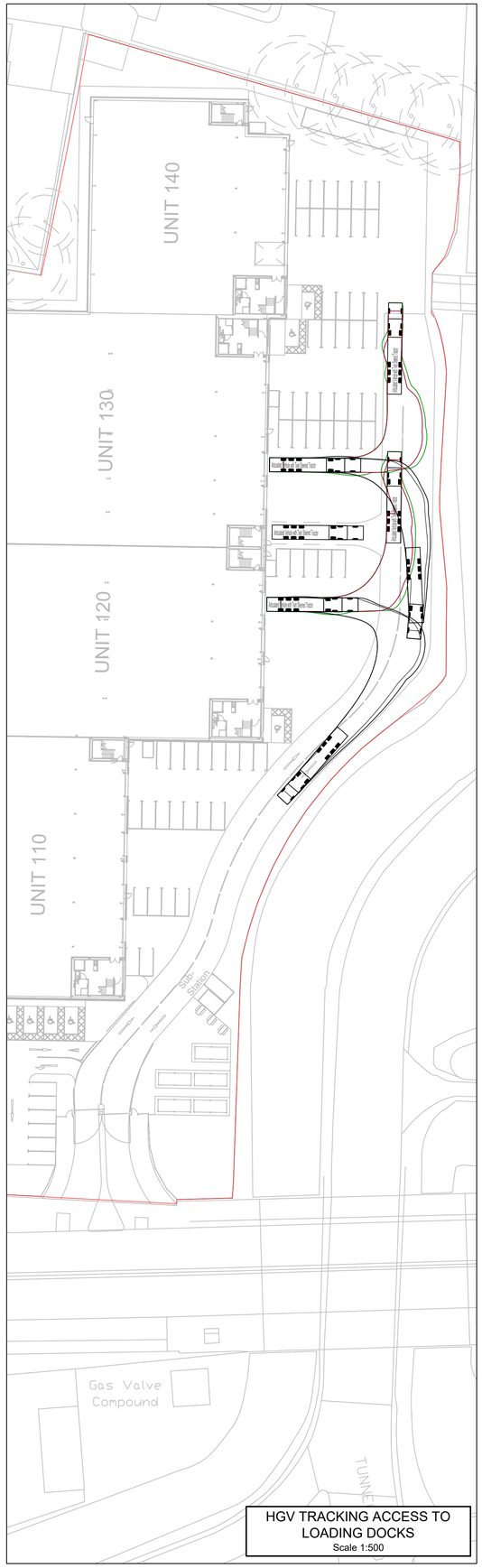
| HYDROCK PROJECT NO. | SCALE @ A1 |
|---|---|
| C-23795-C | AS SHOWN |
| STATUS DESCRIPTION: ISSUED FOR INFORMATION | STATUS: S2 |
| DRAWING NO. (PROJECT CODE-ORGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER): 23795-HYD-00-ZZ-DR-C-7313 | REVISION: P04 |



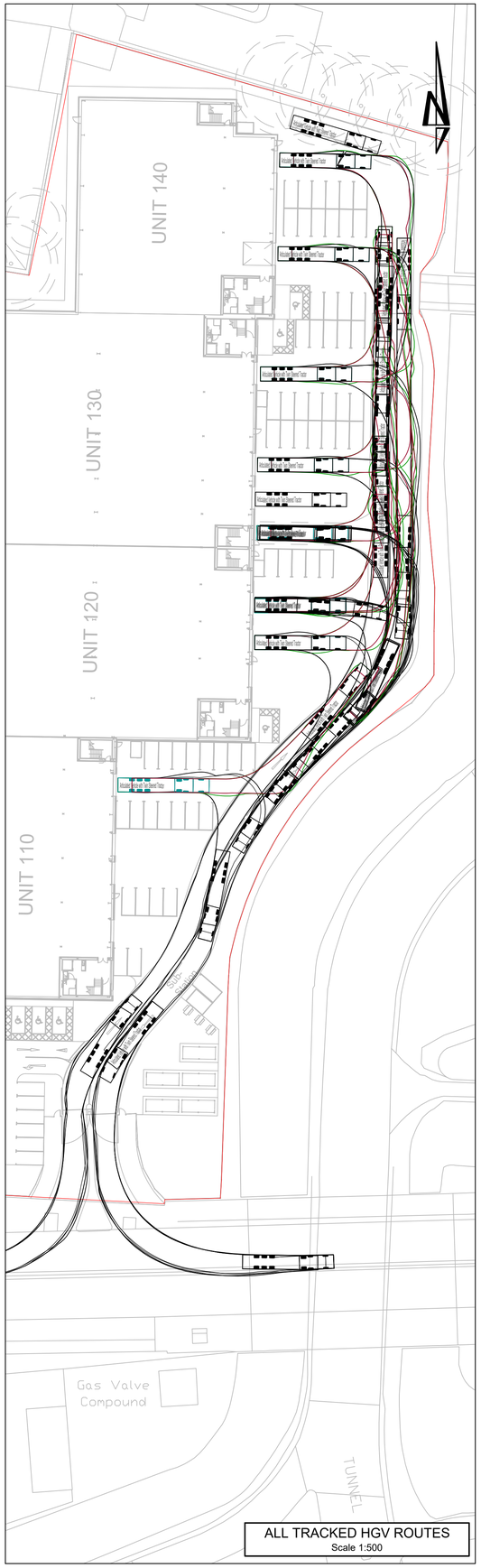

HGV TRACKING THROUGH SITE
Scale 1:500




HGV TRACKING ACCESS TO LOADING DOCKS
Scale 1:500

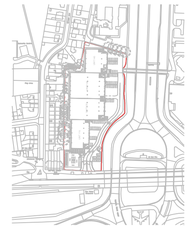



HGV TRACKING ACCESS TO LOADING DOCKS
Scale 1:500




ALL TRACKED HGV ROUTES
Scale 1:500

KEY PLAN



NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
2. The DWG file is issued for the purposes of coordination only and do not represent formal drawing issue and are not to be reprinted in any form. Formal issue of drawings is via DWF, Adobe PDF files and/or hard copies and their associated information issue sheets.
3. Note that all care has been taken with the export of DWG files and their content, but we recommend that you make due dimensional checks before using any DWG file information. Any errors found are to be reported to Hydrock immediately.
4. In the event of any contradiction between this drawing and the specification, then the contractor shall seek clarification from the engineer before proceeding.
5. Refer to landscape architects drawings for extent of external surfaces and kerbing.
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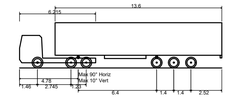
7. Contains OS Mapping Data made available under Open Government Licence v3.0, Crown Copyright
8. Site layout from drawing 5110-CA-00-00-DR-A-00060 Rev P5 dated 24th June 2022 by Chetwoods.




Articulated Vehicle with Twin Steered Tractor

| | |
|---|---|
| Overall Length | 16.500m |
| Overall Width | 2.550m |
| Overall Body Height | 3.691m |
| Min Body Ground Clearance | 0.426m |
| Max Track Width | 2.500m |
| Lock to lock time | 6.00s |
| Kerb to Kerb Turning Radius | 6.987m |

| REV | | | | | | |
|---|---|---|---|---|---|---|
| P02 | REVISED TO SUIT UPDATED SITE PLAN | | | | | |
| | O.CHARD | 28.06.22 | C.MACHUGH | 28.06.22 | T.KING | 28.06.22 |
| P01 | PRELIMINARY ISSUE | | | | | |
| | O.CHARD | 09.06.22 | C.MACHUGH | 09.06.22 | T.KING | 09.06.22 |
| REV | REVISION NOTES/COMMENTS | | | | | |
| | DRAWN BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |

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PROJECT

APRIROSE NCP FLIGHTPATH HEATHROW

TITLE

VEHICLE TRACKING - SHEET 5
HEAVY GOODS VEHICLE

| HYDROCK PROJECT NO. | SCALE @ A1 |
|---|---|
| C-23795-C | AS SHOWN |

| STATUS DESCRIPTION | STATUS |
|---|---|
| ISSUED FOR INFORMATION | S2 |

DRAWING NO. (PROJECT CODE-ORGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER)
23795-HYD-00-ZZ-DR-C-7314

REVISION
P02

# APPENDIX D: Traffic Survey Data

**A4 Bath Road**

| **Eastbound** | Tues 2nd July | Weds 3rd July | Thurs 4th July | Friday 5th July | Sat 6th July | Sun 7th July | Mon 8th July | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 141 | 149 | 133 | 171 | 147 | 170 | 145 | 151 | 148 |
| 2 | 53 | 64 | 60 | 83 | 67 | 108 | 58 | 70 | 64 |
| 3 | 53 | 68 | 51 | 66 | 78 | 69 | 44 | 61 | 56 |
| 4 | 77 | 72 | 63 | 70 | 66 | 53 | 61 | 66 | 69 |
| 5 | 141 | 144 | 130 | 147 | 157 | 140 | 123 | 140 | 137 |
| 6 | 344 | 349 | 328 | 314 | 257 | 230 | 317 | 306 | 330 |
| 7 | 567 | 534 | 503 | 502 | 386 | 279 | 574 | 478 | 536 |
| 8 | 658 | 551 | 608 | 524 | 367 | 292 | 634 | 519 | 595 |
| 9 | 571 | 587 | 574 | 533 | 519 | 348 | 639 | 539 | 581 |
| 10 | 620 | 658 | 529 | 456 | 374 | 366 | 541 | 506 | 561 |
| 11 | 433 | 492 | 445 | 417 | 314 | 473 | 372 | 421 | 432 |
| 12 | 444 | 416 | 392 | 443 | 378 | 438 | 405 | 417 | 420 |
| 13 | 531 | 483 | 515 | 481 | 456 | 529 | 505 | 500 | 503 |
| 14 | 558 | 548 | 569 | 584 | 566 | 527 | 571 | 560 | 566 |
| 15 | 513 | 545 | 542 | 617 | 559 | 602 | 555 | 562 | 554 |
| 16 | 471 | 520 | 647 | 540 | 409 | 436 | 489 | 502 | 533 |
| 17 | 597 | 561 | 631 | 553 | 420 | 452 | 561 | 539 | 581 |
| 18 | 604 | 629 | 654 | 611 | 487 | 639 | 567 | 599 | 613 |
| 19 | 565 | 583 | 577 | 542 | 437 | 491 | 557 | 536 | 565 |
| 20 | 468 | 517 | 594 | 445 | 433 | 428 | 439 | 475 | 493 |
| 21 | 417 | 468 | 425 | 419 | 348 | 432 | 372 | 412 | 420 |
| 22 | 385 | 394 | 448 | 402 | 337 | 353 | 332 | 379 | 392 |
| 23 | 348 | 369 | 372 | 371 | 293 | 307 | 347 | 344 | 361 |
| 24 | 260 | 271 | 281 | 219 | 266 | 216 | 251 | 252 | 256 |
| **Totals** | 9,819 | 9,972 | 10,071 | 9,510 | 8,121 | 8,378 | 9,459 | **9,333** | **9,766** |

**Service Road**

| **Eastbound** | Tues 2nd July | Weds 3rd July | Thurs 4th July | Friday 5th July | Sat 6th July | Sun 7th July | Mon 8th July | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 6 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 |
| 7 | 4 | 3 | 4 | 5 | 3 | 6 | 3 | 4 | 4 |
| 8 | 8 | 2 | 5 | 5 | 7 | 6 | 8 | 6 | 6 |
| 9 | 15 | 7 | 6 | 6 | 16 | 21 | 10 | 12 | 9 |
| 10 | 6 | 4 | 8 | 6 | 15 | 4 | 11 | 8 | 7 |
| 11 | 5 | 8 | 6 | 7 | 7 | 13 | 16 | 9 | 8 |
| 12 | 8 | 8 | 6 | 5 | 9 | 12 | 7 | 8 | 7 |
| 13 | 6 | 5 | 4 | 6 | 13 | 10 | 6 | 7 | 5 |
| 14 | 7 | 5 | 2 | 3 | 20 | 14 | 10 | 9 | 5 |
| 15 | 7 | 6 | 6 | 7 | 11 | 10 | 6 | 8 | 6 |
| 16 | 8 | 7 | 8 | 8 | 9 | 7 | 4 | 7 | 7 |
| 17 | 4 | 5 | 8 | 8 | 10 | 13 | 6 | 8 | 6 |
| 18 | 5 | 7 | 3 | 6 | 6 | 14 | 9 | 7 | 6 |
| 19 | 6 | 7 | 8 | 4 | 9 | 10 | 8 | 7 | 7 |
| 20 | 8 | 9 | 10 | 9 | 8 | 6 | 6 | 8 | 8 |
| 21 | 8 | 8 | 8 | 9 | 15 | 12 | 9 | 10 | 8 |
| 22 | 7 | 3 | 7 | 8 | 15 | 11 | 8 | 8 | 7 |
| 23 | 10 | 12 | 12 | 11 | 10 | 8 | 8 | 10 | 11 |
| 24 | 9 | 6 | 7 | 9 | 3 | 4 | 5 | 6 | 7 |
| **Totals** | 139 | 119 | 128 | 129 | 193 | 191 | 147 | 149 | 132 |

| **Westbound** | Tues 2nd July | Weds 3rd July | Thurs 4th July | Friday 5th July | Sat 6th July | Sun 7th July | Mon 8th July | Average (all days) | Average (weekdays) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 3 |
| 5 | 6 | 7 | 6 | 9 | 5 | 11 | 10 | 8 | 8 |
| 6 | 15 | 7 | 10 | 14 | 20 | 15 | 14 | 14 | 12 |
| 7 | 16 | 4 | 18 | 14 | 20 | 17 | 10 | 14 | 12 |
| 8 | 13 | 4 | 19 | 13 | 22 | 18 | 14 | 15 | 13 |
| 9 | 11 | 5 | 6 | 13 | 16 | 20 | 15 | 12 | 10 |
| 10 | 15 | 11 | 6 | 12 | 17 | 14 | 13 | 13 | 11 |
| 11 | 6 | 10 | 4 | 6 | 8 | 14 | 7 | 8 | 7 |
| 12 | 6 | 12 | 6 | 7 | 8 | 15 | 9 | 9 | 8 |
| 13 | 5 | 9 | 4 | 3 | 7 | 10 | 9 | 7 | 6 |
| 14 | 4 | 7 | 4 | 0 | 15 | 15 | 4 | 7 | 4 |
| 15 | 7 | 4 | 6 | 6 | 8 | 5 | 5 | 6 | 6 |
| 16 | 6 | 4 | 8 | 2 | 3 | 2 | 7 | 5 | 5 |
| 17 | 6 | 4 | 5 | 7 | 5 | 9 | 6 | 6 | 6 |
| 18 | 4 | 6 | 5 | 1 | 4 | 12 | 4 | 5 | 4 |
| 19 | 6 | 3 | 6 | 2 | 7 | 4 | 5 | 5 | 4 |
| 20 | 4 | 6 | 2 | 5 | 3 | 2 | 4 | 4 | 4 |
| 21 | 3 | 2 | 3 | 3 | 4 | 7 | 5 | 4 | 3 |
| 22 | 2 | 3 | 3 | 4 | 5 | 3 | 2 | 3 | 3 |
| 23 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 |
| 24 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **Totals** | 141 | 115 | 127 | 127 | 184 | 197 | 149 | 149 | 132 |

## APPENDIX E: TRICS Output

Filtering Summary

| | | |
|---|---|---|
| Land Use | 02/C | EMPLOYMENT/INDUSTRIAL UNIT |
| Selected Trip Rate Calculation Parameter Range | 260-17675 sqm GFA | |
| Actual Trip Rate Calculation Parameter Range | 260-17675 sqm GFA | |
| Date Range | Minimum: 01/01/00 | Maximum: 07/05/21 |
| Parking Spaces Range | All Surveys Included | |
| Days of the week selected | Tuesday | 3 |
| | Wednesday | 3 |
| | Thursday | 4 |
| | Friday | 3 |
| Main Location Types selected | Suburban Area (PPS6 Out of Centre) | 5 |
| | Edge of Town | 7 |
| | Free Standing (PPS6 Out of Town) | 1 |
| Population within 500m | All Surveys Included | |
| Population <1 Mile ranges selected | 1,000 or Less | 1 |
| | 1,001 to 5,000 | 2 |
| | 5,001 to 10,000 | 2 |
| | 10,001 to 15,000 | 4 |
| | 20,001 to 25,000 | 1 |
| | 25,001 to 50,000 | 3 |
| Population <5 Mile ranges selected | 5,001 to 25,000 | 2 |
| | 50,001 to 75,000 | 2 |
| | 75,001 to 100,000 | 2 |
| | 125,001 to 250,000 | 6 |
| | 250,001 to 500,000 | 1 |
| Car Ownership <5 Mile ranges selected | 0.6 to 1.0 | 3 |
| | 1.1 to 1.5 | 9 |
| | 1.6 to 2.0 | 1 |
| PTAL Rating | No PTAL Present | 13 |
| Filter by Site Operations Breakdown | All Surveys Included | |

Calculation Reference: AUDIT-807401-220512-0543

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

*Selected regions and areas:*

| | | | |
|---|---|---|---|
| 01 | GREATER LONDON | | |
| | HD | HILLINGDON | 1 days |
| 02 | SOUTH EAST | | |
| | HF | HERTFORDSHIRE | 1 days |
| | WS | WEST SUSSEX | 1 days |
| 03 | SOUTH WEST | | |
| | BR | BRISTOL CITY | 1 days |
| | CW | CORNWALL | 2 days |
| 04 | EAST ANGLIA | | |
| | NF | NORFOLK | 2 days |
| | SF | SUFFOLK | 1 days |
| 06 | WEST MIDLANDS | | |
| | WM | WEST MIDLANDS | 2 days |
| 08 | NORTH WEST | | |
| | CH | CHESHIRE | 1 days |
| 09 | NORTH | | |
| | CB | CUMBRIA | 1 days |

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area
Actual Range: 260 to 17675 (units: sqm)
Range Selected by User: 260 to 17675 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 07/05/21

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

*Selected survey days:*

| | |
|---|---|
| Tuesday | 3 days |
| Wednesday | 3 days |
| Thursday | 4 days |
| Friday | 3 days |

*This data displays the number of selected surveys by day of the week.*

*Selected survey types:*

| | |
|---|---|
| Manual count | 13 days |
| Directional ATC Count | 0 days |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.*

*Selected Locations:*

| | |
|---|---|
| Suburban Area (PPS6 Out of Centre) | 5 |
| Edge of Town | 7 |
| Free Standing (PPS6 Out of Town) | 1 |

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

*Selected Location Sub Categories:*

| | |
|---|---|
| Industrial Zone | 11 |
| Commercial Zone | 1 |
| Out of Town | 1 |

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

*Use Class:*

| | |
|---|---|
| Not Known | 13 days |

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

*Filter by Site Operations Breakdown:*
All Surveys Included

*Population within 500m Range:*
All Surveys Included

*Population within 1 mile:*

| | |
|---|---|
| 1,000 or Less | 1 days |
| 1,001 to 5,000 | 2 days |
| 5,001 to 10,000 | 2 days |
| 10,001 to 15,000 | 4 days |
| 20,001 to 25,000 | 1 days |
| 25,001 to 50,000 | 3 days |

*This data displays the number of selected surveys within stated 1-mile radii of population.*

*Population within 5 miles:*

| | |
|---|---|
| 5,001 to 25,000 | 2 days |
| 50,001 to 75,000 | 2 days |
| 75,001 to 100,000 | 2 days |
| 125,001 to 250,000 | 6 days |
| 250,001 to 500,000 | 1 days |

*This data displays the number of selected surveys within stated 5-mile radii of population.*

*Car ownership within 5 miles:*

| | |
|---|---|
| 0.6 to 1.0 | 3 days |
| 1.1 to 1.5 | 9 days |
| 1.6 to 2.0 | 1 days |

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

*Travel Plan:*

| | |
|---|---|
| Yes | 1 days |
| No | 12 days |

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

*PTAL Rating:*

| | |
|---|---|
| No PTAL Present | 13 days |

*This data displays the number of selected surveys with PTAL Ratings.*

*LIST OF SITES relevant to selection parameters*

1 BR-02-C-02 STAINLESS FITTINGS BRISTOL CITY
SOUTH LIBERTY LANE
BRISTOL

Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
*Survey date: TUESDAY 22/09/15* *Survey Type: MANUAL*

2 CB-02-C-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
*Survey date: TUESDAY 10/06/14* *Survey Type: MANUAL*

3 CH-02-C-02 INDUSTRIAL MATERIALS CHESHIRE
JUPITER DRIVE
CHESTER
CHESTER W. EMP. PARK
Edge of Town
Industrial Zone
Total Gross floor area: 8100 sqm
*Survey date: WEDNESDAY 19/11/14* *Survey Type: MANUAL*

4 CW-02-C-01 FOOD DISTRIBUTION CORNWALL
WILSON WAY
CAMBORNE
POOL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 10200 sqm
*Survey date: FRIDAY 08/06/07* *Survey Type: MANUAL*

5 CW-02-C-02 LIGHTING COMPANY CORNWALL
NORMANDY WAY
BODMIN

Edge of Town
Industrial Zone
Total Gross floor area: 17675 sqm
*Survey date: WEDNESDAY 06/06/07* *Survey Type: MANUAL*

6 HD-02-C-01 TARMAC PRODUCTION HILLINGDON
PUMP LANE
HAYES

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3912 sqm
*Survey date: FRIDAY 11/05/12* *Survey Type: MANUAL*

7 HF-02-C-01 INDUSTRIAL UNIT HERTFORDSHIRE
BRIDGE ROAD EAST
WELWYN GARDEN CITY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1800 sqm
*Survey date: THURSDAY 17/07/08* *Survey Type: MANUAL*

8 NF-02-C-03 SHEET METAL CONTRACTOR NORFOLK
ELVIN WAY
NORWICH
HELLESDON
Edge of Town
Industrial Zone
Total Gross floor area: 260 sqm
*Survey date: THURSDAY 07/11/19* *Survey Type: MANUAL*

*LIST OF SITES relevant to selection parameters (Cont.)*

| | | | |
|---|---|---|---|
| 9 | NF-02-C-04 | EXHIBITION DESIGN & MANUF. | NORFOLK |
| | FLETCHER WAY | | |
| | NORWICH | | |
| | UPPER HELLESDON | | |
| | Suburban Area (PPS6 Out of Centre) | | |
| | Industrial Zone | | |
| | Total Gross floor area: | 690 sqm | |
| | *Survey date: THURSDAY* | *14/11/19* | *Survey Type: MANUAL* |
| 10 | SF-02-C-01 | JOINERY | SUFFOLK |
| | ANSON ROAD | | |
| | IPSWICH | | |
| | MARTLESHAM HEATH | | |
| | Edge of Town | | |
| | Industrial Zone | | |
| | Total Gross floor area: | 1100 sqm | |
| | *Survey date: FRIDAY* | *12/07/13* | *Survey Type: MANUAL* |
| 11 | WM-02-C-02 | ARDONPRINT | WEST MIDLANDS |
| | SYDNEY ROAD | | |
| | BIRMINGHAM | | |
| | SMALL HEATH | | |
| | Suburban Area (PPS6 Out of Centre) | | |
| | Commercial Zone | | |
| | Total Gross floor area: | 300 sqm | |
| | *Survey date: WEDNESDAY* | *17/06/09* | *Survey Type: MANUAL* |
| 12 | WM-02-C-03 | INDUSTRIAL GLASS | WEST MIDLANDS |
| | DOWNING STREET | | |
| | SMETHWICK | | |
| | Edge of Town | | |
| | Industrial Zone | | |
| | Total Gross floor area: | 5070 sqm | |
| | *Survey date: TUESDAY* | *06/11/12* | *Survey Type: MANUAL* |
| 13 | WS-02-C-02 | AVIATION COMPANY | WEST SUSSEX |
| | MAYDWELL AVENUE | | |
| | NEAR HORSHAM | | |
| | SLINFOLD | | |
| | Free Standing (PPS6 Out of Town) | | |
| | Out of Town | | |
| | Total Gross floor area: | 11375 sqm | |
| | *Survey date: THURSDAY* | *23/01/14* | *Survey Type: MANUAL* |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

*MANUALLY DESELECTED SITES*

| Site Ref | Reason for Deselection |
|---|---|
| BD-02-C-01 | Conducted during the Covid-19 pandemic |
| CH-02-C-04 | Conducted during the Covid-19 pandemic |
| GS-02-C-02 | Conducted during the Covid-19 pandemic |

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 1 | 1976 | 0.152 | 1 | 1976 | 0.000 | 1 | 1976 | 0.152 |
| 06:00 - 07:00 | 2 | 6676 | 0.157 | 2 | 6676 | 0.045 | 2 | 6676 | 0.202 |
| 07:00 - 08:00 | 13 | 4918 | 0.394 | 13 | 4918 | 0.102 | 13 | 4918 | 0.496 |
| 08:00 - 09:00 | 13 | 4918 | 0.529 | 13 | 4918 | 0.113 | 13 | 4918 | 0.642 |
| 09:00 - 10:00 | 13 | 4918 | 0.233 | 13 | 4918 | 0.155 | 13 | 4918 | 0.388 |
| 10:00 - 11:00 | 13 | 4918 | 0.172 | 13 | 4918 | 0.177 | 13 | 4918 | 0.349 |
| 11:00 - 12:00 | 13 | 4918 | 0.139 | 13 | 4918 | 0.147 | 13 | 4918 | 0.286 |
| 12:00 - 13:00 | 13 | 4918 | 0.180 | 13 | 4918 | 0.233 | 13 | 4918 | 0.413 |
| 13:00 - 14:00 | 13 | 4918 | 0.313 | 13 | 4918 | 0.214 | 13 | 4918 | 0.527 |
| 14:00 - 15:00 | 13 | 4918 | 0.135 | 13 | 4918 | 0.292 | 13 | 4918 | 0.427 |
| 15:00 - 16:00 | 13 | 4918 | 0.114 | 13 | 4918 | 0.153 | 13 | 4918 | 0.267 |
| 16:00 - 17:00 | 13 | 4918 | 0.128 | 13 | 4918 | 0.389 | 13 | 4918 | 0.517 |
| 17:00 - 18:00 | 13 | 4918 | 0.070 | 13 | 4918 | 0.446 | 13 | 4918 | 0.516 |
| 18:00 - 19:00 | 13 | 4918 | 0.053 | 13 | 4918 | 0.200 | 13 | 4918 | 0.253 |
| 19:00 - 20:00 | 2 | 6676 | 0.082 | 2 | 6676 | 0.157 | 2 | 6676 | 0.239 |
| 20:00 - 21:00 | 1 | 1976 | 0.152 | 1 | 1976 | 0.202 | 1 | 1976 | 0.354 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 3.003 | | | 3.025 | | | 6.028 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

| | |
|---|---|
| Trip rate parameter range selected: | 260 - 17675 (units: sqm) |
| Survey date date range: | 01/01/00 - 07/05/21 |
| Number of weekdays (Monday-Friday): | 13 |
| Number of Saturdays: | 0 |
| Number of Sundays: | 0 |
| Surveys automatically removed from selection: | 1 |
| Surveys manually removed from selection: | 3 |

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 06:00 - 07:00 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 |
| 07:00 - 08:00 | 13 | 4918 | 0.009 | 13 | 4918 | 0.009 | 13 | 4918 | 0.018 |
| 08:00 - 09:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 09:00 - 10:00 | 13 | 4918 | 0.005 | 13 | 4918 | 0.005 | 13 | 4918 | 0.010 |
| 10:00 - 11:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 | 13 | 4918 | 0.004 |
| 11:00 - 12:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 12:00 - 13:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 | 13 | 4918 | 0.004 |
| 13:00 - 14:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 14:00 - 15:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 | 13 | 4918 | 0.004 |
| 15:00 - 16:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 16:00 - 17:00 | 13 | 4918 | 0.008 | 13 | 4918 | 0.008 | 13 | 4918 | 0.016 |
| 17:00 - 18:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 18:00 - 19:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 19:00 - 20:00 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 |
| 20:00 - 21:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.028 | | | 0.028 | | | 0.056 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 06:00 - 07:00 | 2 | 6676 | 0.015 | 2 | 6676 | 0.000 | 2 | 6676 | 0.015 |
| 07:00 - 08:00 | 13 | 4918 | 0.023 | 13 | 4918 | 0.050 | 13 | 4918 | 0.073 |
| 08:00 - 09:00 | 13 | 4918 | 0.044 | 13 | 4918 | 0.038 | 13 | 4918 | 0.082 |
| 09:00 - 10:00 | 13 | 4918 | 0.052 | 13 | 4918 | 0.052 | 13 | 4918 | 0.104 |
| 10:00 - 11:00 | 13 | 4918 | 0.058 | 13 | 4918 | 0.061 | 13 | 4918 | 0.119 |
| 11:00 - 12:00 | 13 | 4918 | 0.056 | 13 | 4918 | 0.059 | 13 | 4918 | 0.115 |
| 12:00 - 13:00 | 13 | 4918 | 0.050 | 13 | 4918 | 0.053 | 13 | 4918 | 0.103 |
| 13:00 - 14:00 | 13 | 4918 | 0.039 | 13 | 4918 | 0.041 | 13 | 4918 | 0.080 |
| 14:00 - 15:00 | 13 | 4918 | 0.048 | 13 | 4918 | 0.044 | 13 | 4918 | 0.092 |
| 15:00 - 16:00 | 13 | 4918 | 0.036 | 13 | 4918 | 0.023 | 13 | 4918 | 0.059 |
| 16:00 - 17:00 | 13 | 4918 | 0.038 | 13 | 4918 | 0.025 | 13 | 4918 | 0.063 |
| 17:00 - 18:00 | 13 | 4918 | 0.011 | 13 | 4918 | 0.008 | 13 | 4918 | 0.019 |
| 18:00 - 19:00 | 13 | 4918 | 0.006 | 13 | 4918 | 0.008 | 13 | 4918 | 0.014 |
| 19:00 - 20:00 | 2 | 6676 | 0.000 | 2 | 6676 | 0.045 | 2 | 6676 | 0.045 |
| 20:00 - 21:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.152 | 1 | 1976 | 0.152 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.476 | | | 0.659 | | | 1.135 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 06:00 - 07:00 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 |
| 07:00 - 08:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 08:00 - 09:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 09:00 - 10:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 | 13 | 4918 | 0.004 |
| 10:00 - 11:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.000 | 13 | 4918 | 0.002 |
| 11:00 - 12:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 |
| 12:00 - 13:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 | 13 | 4918 | 0.004 |
| 13:00 - 14:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 14:00 - 15:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 15:00 - 16:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 16:00 - 17:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 17:00 - 18:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 18:00 - 19:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 19:00 - 20:00 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 |
| 20:00 - 21:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.006 | | | 0.006 | | | 0.012 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 06:00 - 07:00 | 2 | 6676 | 0.007 | 2 | 6676 | 0.000 | 2 | 6676 | 0.007 |
| 07:00 - 08:00 | 13 | 4918 | 0.011 | 13 | 4918 | 0.002 | 13 | 4918 | 0.013 |
| 08:00 - 09:00 | 13 | 4918 | 0.008 | 13 | 4918 | 0.000 | 13 | 4918 | 0.008 |
| 09:00 - 10:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.000 | 13 | 4918 | 0.002 |
| 10:00 - 11:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 11:00 - 12:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 12:00 - 13:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 | 13 | 4918 | 0.000 |
| 13:00 - 14:00 | 13 | 4918 | 0.014 | 13 | 4918 | 0.011 | 13 | 4918 | 0.025 |
| 14:00 - 15:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.014 | 13 | 4918 | 0.016 |
| 15:00 - 16:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.002 | 13 | 4918 | 0.002 |
| 16:00 - 17:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.019 | 13 | 4918 | 0.021 |
| 17:00 - 18:00 | 13 | 4918 | 0.002 | 13 | 4918 | 0.014 | 13 | 4918 | 0.016 |
| 18:00 - 19:00 | 13 | 4918 | 0.000 | 13 | 4918 | 0.005 | 13 | 4918 | 0.005 |
| 19:00 - 20:00 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 | 2 | 6676 | 0.000 |
| 20:00 - 21:00 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 | 1 | 1976 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.048 | | | 0.067 | | | 0.115 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Mayer Brown Oriental Road Woking Licence No: 807401

Filtering Summary

| | | |
|---|---|---|
| Land Use | 02/C | EMPLOYMENT/INDUSTRIAL UNIT |
| Selected Trip Rate Calculation Parameter Range | 256-67459 sqm GFA | |
| Actual Trip Rate Calculation Parameter Range | 256-67459 sqm GFA | |
| Date Range | Minimum: 01/01/00 | Maximum: 22/11/21 |
| Parking Spaces Range | All Surveys Included | |
| Days of the week selected | Monday | 2 |
| | Tuesday | 5 |
| | Wednesday | 4 |
| | Thursday | 5 |
| | Friday | 1 |
| Main Location Types selected | Suburban Area (PPS6 Out of Centre) | 8 |
| | Edge of Town | 6 |
| | Neighbourhood Centre (PPS6 Local Centre) | 3 |
| Population within 500m | All Surveys Included | |
| Population <1 Mile ranges selected | 1,000 or Less | 1 |
| | 1,001 to 5,000 | 5 |
| | 5,001 to 10,000 | 2 |
| | 10,001 to 15,000 | 2 |
| | 15,001 to 20,000 | 2 |
| | 25,001 to 50,000 | 4 |
| | 50,001 to 100,000 | 1 |
| Population <5 Mile ranges selected | 5,001 to 25,000 | 1 |
| | 25,001 to 50,000 | 1 |
| | 50,001 to 75,000 | 2 |
| | 75,001 to 100,000 | 3 |
| | 125,001 to 250,000 | 4 |
| | 250,001 to 500,000 | 4 |
| | 500,001 or More | 2 |
| Car Ownership <5 Mile ranges selected | 0.5 or Less | 1 |
| | 0.6 to 1.0 | 4 |
| | 1.1 to 1.5 | 11 |
| | 1.6 to 2.0 | 1 |
| PTAL Rating | No PTAL Present | 16 |
| | 1b Very poor | 1 |
| Filter by Site Operations Breakdown | All Surveys Included | |

Calculation Reference: AUDIT-807401-220512-0556

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

*Selected regions and areas:*

| | | | |
|---|---|---|---|
| 01 | GREATER LONDON | | |
| | BT | BRENT | 1 days |
| | HD | HILLINGDON | 1 days |
| 02 | SOUTH EAST | | |
| | HC | HAMPSHIRE | 1 days |
| | WS | WEST SUSSEX | 1 days |
| 03 | SOUTH WEST | | |
| | BR | BRISTOL CITY | 1 days |
| | DV | DEVON | 2 days |
| 05 | EAST MIDLANDS | | |
| | DS | DERBYSHIRE | 1 days |
| | NR | NORTHAMPTONSHIRE | 1 days |
| 06 | WEST MIDLANDS | | |
| | HE | HEREFORDSHIRE | 1 days |
| | WK | WARWICKSHIRE | 1 days |
| | WM | WEST MIDLANDS | 2 days |
| 07 | YORKSHIRE & NORTH LINCOLNSHIRE | | |
| | NY | NORTH YORKSHIRE | 1 days |
| 08 | NORTH WEST | | |
| | CH | CHESHIRE | 1 days |
| 09 | NORTH | | |
| | CB | CUMBRIA | 1 days |
| | TW | TYNE & WEAR | 1 days |

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area
Actual Range: 256 to 67459 (units: sqm)
Range Selected by User: 256 to 67459 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 22/11/21

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

*Selected survey days:*

| | |
|---|---|
| Monday | 2 days |
| Tuesday | 5 days |
| Wednesday | 4 days |
| Thursday | 5 days |
| Friday | 1 days |

*This data displays the number of selected surveys by day of the week.*

*Selected survey types:*

| | |
|---|---|
| Manual count | 17 days |
| Directional ATC Count | 0 days |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.*

*Selected Locations:*

| | |
|---|---|
| Suburban Area (PPS6 Out of Centre) | 8 |
| Edge of Town | 6 |
| Neighbourhood Centre (PPS6 Local Centre) | 3 |

*This data displays the number of surveys per main location category within the selected set. The main location categories*

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

*Use Class:*

| | |
|---|---|
| Not Known | 17 days |

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

*Filter by Site Operations Breakdown:*
All Surveys Included

*Population within 500m Range:*
All Surveys Included

*Population within 1 mile:*

| | |
|---|---|
| 1,000 or Less | 1 days |
| 1,001 to 5,000 | 5 days |
| 5,001 to 10,000 | 2 days |
| 10,001 to 15,000 | 2 days |
| 15,001 to 20,000 | 2 days |
| 25,001 to 50,000 | 4 days |
| 50,001 to 100,000 | 1 days |

*This data displays the number of selected surveys within stated 1-mile radii of population.*

*Population within 5 miles:*

| | |
|---|---|
| 5,001 to 25,000 | 1 days |
| 25,001 to 50,000 | 1 days |
| 50,001 to 75,000 | 2 days |
| 75,001 to 100,000 | 3 days |
| 125,001 to 250,000 | 4 days |
| 250,001 to 500,000 | 4 days |
| 500,001 or More | 2 days |

*This data displays the number of selected surveys within stated 5-mile radii of population.*

*Car ownership within 5 miles:*

| | |
|---|---|
| 0.5 or Less | 1 days |
| 0.6 to 1.0 | 4 days |
| 1.1 to 1.5 | 11 days |
| 1.6 to 2.0 | 1 days |

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

*Travel Plan:*

| | |
|---|---|
| Yes | 1 days |
| No | 16 days |

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

*PTAL Rating:*

| | |
|---|---|
| No PTAL Present | 16 days |
| 1b Very poor | 1 days |

*This data displays the number of selected surveys with PTAL Ratings.*

*LIST OF SITES relevant to selection parameters*

1 BR-02-C-01 MECH. ENGINEERS BRISTOL CITY
NOVERS HILL
BRISTOL
BEDMINSTER
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1100 sqm
*Survey date: MONDAY 19/10/09* *Survey Type: MANUAL*

2 BT-02-C-02 FOOD PRODUCTION BRENT
ABBEYDALE ROAD
ALPERTON

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 6100 sqm
*Survey date: WEDNESDAY 10/09/14* *Survey Type: MANUAL*

3 CB-02-C-02 STEEL FABRICATION CUMBRIA
BLACKDYKE ROAD
CARLISLE
KINGSTOWN IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 715 sqm
*Survey date: FRIDAY 15/10/21* *Survey Type: MANUAL*

4 CH-02-C-01 BAKERY CHESHIRE
GADBROOK PARK
NORTHWICH
HIGH SHURLACH
Edge of Town
Industrial Zone
Total Gross floor area: 15000 sqm
*Survey date: THURSDAY 21/06/07* *Survey Type: MANUAL*

5 DS-02-C-02 ENGINEERED PRODUCTS DERBYSHIRE
PONTEFRACT STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 2600 sqm
*Survey date: THURSDAY 25/06/15* *Survey Type: MANUAL*

6 DV-02-C-01 TUBE MANUFACTURE DEVON
PLYMBRIDGE ROAD
PLYMOUTH
ESTOVER
Edge of Town
Industrial Zone
Total Gross floor area: 20000 sqm
*Survey date: TUESDAY 17/07/12* *Survey Type: MANUAL*

7 DV-02-C-02 ENERGY RECOVERY FACILITY DEVON
GRACE ROAD SOUTH
EXETER
MARSH BARTON TRAD. EST.
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3513 sqm
*Survey date: THURSDAY 06/07/17* *Survey Type: MANUAL*

*LIST OF SITES relevant to selection parameters (Cont.)*

8 HC-02-C-02 GIN DISTILLERY HAMPSHIRE
LONDON ROAD
LAVERSTOKE

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 8000 sqm
*Survey date: WEDNESDAY 09/05/18 Survey Type: MANUAL*

9 HD-02-C-02 WINDOW PRODUCTION HILLINGDON
BETAM ROAD
HAYES

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1080 sqm
*Survey date: WEDNESDAY 05/12/12 Survey Type: MANUAL*

10 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
HEREFORD
BURCOTT
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
*Survey date: TUESDAY 22/10/13 Survey Type: MANUAL*

11 NR-02-C-01 PAPER COMPANY NORTHAMPTONSHIRE
RHOSILI ROAD
NORTHAMPTON
BRACKMILLS
Edge of Town
Industrial Zone
Total Gross floor area: 11500 sqm
*Survey date: THURSDAY 27/11/08 Survey Type: MANUAL*

12 NY-02-C-01 FOOD PRODUCTION NORTH YORKSHIRE
FEARBY ROAD
MASHAM

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 2491 sqm
*Survey date: TUESDAY 23/09/08 Survey Type: MANUAL*

13 TW-02-C-01 INDUSTRIAL UNIT TYNE & WEAR
SHAFTESBURY AVENUE
JARROW
TYNE POINT IND. ESTATE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 950 sqm
*Survey date: THURSDAY 15/11/12 Survey Type: MANUAL*

14 WK-02-C-01 MACHINE ENGINEERING WARWICKSHIRE
CASTLE MOUND WAY
RUGBY

Edge of Town
Industrial Zone
Total Gross floor area: 9216 sqm
*Survey date: WEDNESDAY 10/11/21 Survey Type: MANUAL*

15 WM-02-C-04 FOUNDRY WEST MIDLANDS
STOURVALE ROAD
STOURBRIDGE
LYE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 4324 sqm
*Survey date: TUESDAY 21/11/17 Survey Type: MANUAL*

*LIST OF SITES relevant to selection parameters (Cont.)*

16 WM-02-C-05 INDIAN CATERING WEST MIDLANDS
ICKNIELD STREET
BIRMINGHAM
HOCKLEY
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 256 sqm
*Survey date: MONDAY 22/11/21 Survey Type: MANUAL*

17 WS-02-C-03 ROLLS ROYCE HQ & PLANT WEST SUSSEX
STANE STREET
NEAR CHICHESTER
WESTHAMPNETT
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 67459 sqm
*Survey date: TUESDAY 24/09/19 Survey Type: MANUAL*

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

*MANUALLY DESELECTED SITES*

| Site Ref | Reason for Deselection |
|---|---|
| LC-02-C-05 | Conducted during the Covid-19 pandemic |
| NR-02-C-02 | Conducted during the Covid-19 pandemic |
| TV-02-C-02 | Conducted during the Covid-19 pandemic |

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 2 | 38338 | 0.480 | 2 | 38338 | 0.005 | 2 | 38338 | 0.485 |
| 06:00 - 07:00 | 3 | 27592 | 0.315 | 3 | 27592 | 0.074 | 3 | 27592 | 0.389 |
| 07:00 - 08:00 | 16 | 9746 | 0.310 | 16 | 9746 | 0.077 | 16 | 9746 | 0.387 |
| 08:00 - 09:00 | 16 | 9746 | 0.259 | 16 | 9746 | 0.052 | 16 | 9746 | 0.311 |
| 09:00 - 10:00 | 17 | 9187 | 0.147 | 17 | 9187 | 0.089 | 17 | 9187 | 0.236 |
| 10:00 - 11:00 | 17 | 9187 | 0.102 | 17 | 9187 | 0.070 | 17 | 9187 | 0.172 |
| 11:00 - 12:00 | 17 | 9187 | 0.078 | 17 | 9187 | 0.069 | 17 | 9187 | 0.147 |
| 12:00 - 13:00 | 17 | 9187 | 0.103 | 17 | 9187 | 0.117 | 17 | 9187 | 0.220 |
| 13:00 - 14:00 | 17 | 9187 | 0.223 | 17 | 9187 | 0.133 | 17 | 9187 | 0.356 |
| 14:00 - 15:00 | 17 | 9187 | 0.282 | 17 | 9187 | 0.349 | 17 | 9187 | 0.631 |
| 15:00 - 16:00 | 17 | 9187 | 0.081 | 17 | 9187 | 0.248 | 17 | 9187 | 0.329 |
| 16:00 - 17:00 | 17 | 9187 | 0.067 | 17 | 9187 | 0.290 | 17 | 9187 | 0.357 |
| 17:00 - 18:00 | 17 | 9187 | 0.048 | 17 | 9187 | 0.255 | 17 | 9187 | 0.303 |
| 18:00 - 19:00 | 16 | 9380 | 0.055 | 16 | 9380 | 0.143 | 16 | 9380 | 0.198 |
| 19:00 - 20:00 | 3 | 5824 | 0.011 | 3 | 5824 | 0.006 | 3 | 5824 | 0.017 |
| 20:00 - 21:00 | 2 | 8608 | 0.006 | 2 | 8608 | 0.081 | 2 | 8608 | 0.087 |
| 21:00 - 22:00 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 2.567 | | | 2.058 | | | 4.625 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

| | |
|---|---|
| Trip rate parameter range selected: | 256 - 67459 (units: sqm) |
| Survey date date range: | 01/01/00 - 22/11/21 |
| Number of weekdays (Monday-Friday): | 17 |
| Number of Saturdays: | 0 |
| Number of Sundays: | 0 |
| Surveys automatically removed from selection: | 1 |
| Surveys manually removed from selection: | 3 |

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 2 | 38338 | 0.001 | 2 | 38338 | 0.001 | 2 | 38338 | 0.002 |
| 06:00 - 07:00 | 3 | 27592 | 0.000 | 3 | 27592 | 0.000 | 3 | 27592 | 0.000 |
| 07:00 - 08:00 | 16 | 9746 | 0.000 | 16 | 9746 | 0.000 | 16 | 9746 | 0.000 |
| 08:00 - 09:00 | 16 | 9746 | 0.001 | 16 | 9746 | 0.001 | 16 | 9746 | 0.002 |
| 09:00 - 10:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 10:00 - 11:00 | 17 | 9187 | 0.000 | 17 | 9187 | 0.000 | 17 | 9187 | 0.000 |
| 11:00 - 12:00 | 17 | 9187 | 0.000 | 17 | 9187 | 0.000 | 17 | 9187 | 0.000 |
| 12:00 - 13:00 | 17 | 9187 | 0.000 | 17 | 9187 | 0.000 | 17 | 9187 | 0.000 |
| 13:00 - 14:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 14:00 - 15:00 | 17 | 9187 | 0.003 | 17 | 9187 | 0.003 | 17 | 9187 | 0.006 |
| 15:00 - 16:00 | 17 | 9187 | 0.004 | 17 | 9187 | 0.004 | 17 | 9187 | 0.008 |
| 16:00 - 17:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 17:00 - 18:00 | 17 | 9187 | 0.003 | 17 | 9187 | 0.003 | 17 | 9187 | 0.006 |
| 18:00 - 19:00 | 16 | 9380 | 0.001 | 16 | 9380 | 0.001 | 16 | 9380 | 0.002 |
| 19:00 - 20:00 | 3 | 5824 | 0.000 | 3 | 5824 | 0.000 | 3 | 5824 | 0.000 |
| 20:00 - 21:00 | 2 | 8608 | 0.000 | 2 | 8608 | 0.000 | 2 | 8608 | 0.000 |
| 21:00 - 22:00 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.016 | | | 0.016 | | | 0.032 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 2 | 38338 | 0.007 | 2 | 38338 | 0.001 | 2 | 38338 | 0.008 |
| 06:00 - 07:00 | 3 | 27592 | 0.008 | 3 | 27592 | 0.006 | 3 | 27592 | 0.014 |
| 07:00 - 08:00 | 16 | 9746 | 0.015 | 16 | 9746 | 0.017 | 16 | 9746 | 0.032 |
| 08:00 - 09:00 | 16 | 9746 | 0.020 | 16 | 9746 | 0.020 | 16 | 9746 | 0.040 |
| 09:00 - 10:00 | 17 | 9187 | 0.034 | 17 | 9187 | 0.024 | 17 | 9187 | 0.058 |
| 10:00 - 11:00 | 17 | 9187 | 0.024 | 17 | 9187 | 0.019 | 17 | 9187 | 0.043 |
| 11:00 - 12:00 | 17 | 9187 | 0.022 | 17 | 9187 | 0.015 | 17 | 9187 | 0.037 |
| 12:00 - 13:00 | 17 | 9187 | 0.028 | 17 | 9187 | 0.024 | 17 | 9187 | 0.052 |
| 13:00 - 14:00 | 17 | 9187 | 0.024 | 17 | 9187 | 0.017 | 17 | 9187 | 0.041 |
| 14:00 - 15:00 | 17 | 9187 | 0.020 | 17 | 9187 | 0.012 | 17 | 9187 | 0.032 |
| 15:00 - 16:00 | 17 | 9187 | 0.013 | 17 | 9187 | 0.010 | 17 | 9187 | 0.023 |
| 16:00 - 17:00 | 17 | 9187 | 0.009 | 17 | 9187 | 0.011 | 17 | 9187 | 0.020 |
| 17:00 - 18:00 | 17 | 9187 | 0.010 | 17 | 9187 | 0.006 | 17 | 9187 | 0.016 |
| 18:00 - 19:00 | 16 | 9380 | 0.007 | 16 | 9380 | 0.011 | 16 | 9380 | 0.018 |
| 19:00 - 20:00 | 3 | 5824 | 0.006 | 3 | 5824 | 0.000 | 3 | 5824 | 0.006 |
| 20:00 - 21:00 | 2 | 8608 | 0.000 | 2 | 8608 | 0.006 | 2 | 8608 | 0.006 |
| 21:00 - 22:00 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.247 | | | 0.199 | | | 0.446 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 2 | 38338 | 0.003 | 2 | 38338 | 0.003 | 2 | 38338 | 0.006 |
| 06:00 - 07:00 | 3 | 27592 | 0.002 | 3 | 27592 | 0.002 | 3 | 27592 | 0.004 |
| 07:00 - 08:00 | 16 | 9746 | 0.001 | 16 | 9746 | 0.001 | 16 | 9746 | 0.002 |
| 08:00 - 09:00 | 16 | 9746 | 0.001 | 16 | 9746 | 0.001 | 16 | 9746 | 0.002 |
| 09:00 - 10:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 10:00 - 11:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 11:00 - 12:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 12:00 - 13:00 | 17 | 9187 | 0.002 | 17 | 9187 | 0.001 | 17 | 9187 | 0.003 |
| 13:00 - 14:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 14:00 - 15:00 | 17 | 9187 | 0.002 | 17 | 9187 | 0.002 | 17 | 9187 | 0.004 |
| 15:00 - 16:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 16:00 - 17:00 | 17 | 9187 | 0.002 | 17 | 9187 | 0.002 | 17 | 9187 | 0.004 |
| 17:00 - 18:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 18:00 - 19:00 | 16 | 9380 | 0.001 | 16 | 9380 | 0.001 | 16 | 9380 | 0.002 |
| 19:00 - 20:00 | 3 | 5824 | 0.000 | 3 | 5824 | 0.000 | 3 | 5824 | 0.000 |
| 20:00 - 21:00 | 2 | 8608 | 0.000 | 2 | 8608 | 0.000 | 2 | 8608 | 0.000 |
| 21:00 - 22:00 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.020 | | | 0.019 | | | 0.039 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | 2 | 38338 | 0.016 | 2 | 38338 | 0.000 | 2 | 38338 | 0.016 |
| 06:00 - 07:00 | 3 | 27592 | 0.027 | 3 | 27592 | 0.004 | 3 | 27592 | 0.031 |
| 07:00 - 08:00 | 16 | 9746 | 0.012 | 16 | 9746 | 0.001 | 16 | 9746 | 0.013 |
| 08:00 - 09:00 | 16 | 9746 | 0.004 | 16 | 9746 | 0.001 | 16 | 9746 | 0.005 |
| 09:00 - 10:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.000 | 17 | 9187 | 0.001 |
| 10:00 - 11:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 11:00 - 12:00 | 17 | 9187 | 0.000 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 |
| 12:00 - 13:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.001 | 17 | 9187 | 0.002 |
| 13:00 - 14:00 | 17 | 9187 | 0.007 | 17 | 9187 | 0.002 | 17 | 9187 | 0.009 |
| 14:00 - 15:00 | 17 | 9187 | 0.017 | 17 | 9187 | 0.014 | 17 | 9187 | 0.031 |
| 15:00 - 16:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.005 | 17 | 9187 | 0.006 |
| 16:00 - 17:00 | 17 | 9187 | 0.001 | 17 | 9187 | 0.010 | 17 | 9187 | 0.011 |
| 17:00 - 18:00 | 17 | 9187 | 0.003 | 17 | 9187 | 0.006 | 17 | 9187 | 0.009 |
| 18:00 - 19:00 | 16 | 9380 | 0.003 | 16 | 9380 | 0.006 | 16 | 9380 | 0.009 |
| 19:00 - 20:00 | 3 | 5824 | 0.000 | 3 | 5824 | 0.000 | 3 | 5824 | 0.000 |
| 20:00 - 21:00 | 2 | 8608 | 0.000 | 2 | 8608 | 0.000 | 2 | 8608 | 0.000 |
| 21:00 - 22:00 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 | 1 | 8000 | 0.000 |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.094 | | | 0.052 | | | 0.146 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Filtering Summary

| | | |
|---|---|---|
| Land Use | 02/F | EMPLOYMENT/WAREHOUSING (COMMERCIAL) |
| Selected Trip Rate Calculation Parameter Range | 190-76000 sqm GFA | |
| Actual Trip Rate Calculation Parameter Range | 3665-20400 sqm GFA | |
| Date Range | Minimum: 01/01/14 | Maximum: 22/11/21 |
| Parking Spaces Range | All Surveys Included | |
| Days of the week selected | Monday | 1 |
| | Thursday | 2 |
| | Friday | 1 |
| Main Location Types selected | Edge of Town | 4 |
| Population within 500m | All Surveys Included | |
| Population <1 Mile ranges selected | 10,001 to 15,000 | 1 |
| | 15,001 to 20,000 | 1 |
| | 20,001 to 25,000 | 1 |
| | 25,001 to 50,000 | 1 |
| Population <5 Mile ranges selected | 125,001 to 250,000 | 2 |
| | 250,001 to 500,000 | 1 |
| | 500,001 or More | 1 |
| Car Ownership <5 Mile ranges selected | 0.6 to 1.0 | 3 |
| | 1.1 to 1.5 | 1 |
| PTAL Rating | No PTAL Present | 2 |
| | 1a (Low) Very poor | 1 |
| | 2 Poor | 1 |
| Filter by Site Operations Breakdown | All Surveys Included | |

Calculation Reference: AUDIT-807401-220503-0526

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

*Selected regions and areas:*

| | | | |
|---|---|---|---|
| 01 | GREATER LONDON | | |
| | BE | BEXLEY | 1 days |
| | HD | HILLINGDON | 1 days |
| 02 | SOUTH EAST | | |
| | HC | HAMPSHIRE | 1 days |
| | KC | KENT | 1 days |

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area
Actual Range: 3665 to 20400 (units: sqm)
Range Selected by User: 190 to 76000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

*Selected survey days:*

| | |
|---|---|
| Monday | 1 days |
| Thursday | 2 days |
| Friday | 1 days |

*This data displays the number of selected surveys by day of the week.*

*Selected survey types:*

| | |
|---|---|
| Manual count | 4 days |
| Directional ATC Count | 0 days |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.*

*Selected Locations:*

| | |
|---|---|
| Edge of Town | 4 |

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

*Selected Location Sub Categories:*

| | |
|---|---|
| Industrial Zone | 4 |

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Secondary Filtering selection:

*Use Class:*

| | |
|---|---|
| B8 | 4 days |

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

*Filter by Site Operations Breakdown:*
All Surveys Included

*Population within 500m Range:*
All Surveys Included

*Population within 1 mile:*

| | |
|---|---|
| 10,001 to 15,000 | 1 days |
| 15,001 to 20,000 | 1 days |
| 20,001 to 25,000 | 1 days |
| 25,001 to 50,000 | 1 days |

*This data displays the number of selected surveys within stated 1-mile radii of population.*

*Population within 5 miles:*

| | |
|---|---|
| 125,001 to 250,000 | 2 days |
| 250,001 to 500,000 | 1 days |
| 500,001 or More | 1 days |

*This data displays the number of selected surveys within stated 5-mile radii of population.*

*Car ownership within 5 miles:*

| | |
|---|---|
| 0.6 to 1.0 | 3 days |
| 1.1 to 1.5 | 1 days |

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

*Travel Plan:*

| | |
|---|---|
| Yes | 1 days |
| No | 3 days |

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

*PTAL Rating:*

| | |
|---|---|
| No PTAL Present | 2 days |
| 1a (Low) Very poor | 1 days |
| 2 Poor | 1 days |

*This data displays the number of selected surveys with PTAL Ratings.*

*LIST OF SITES relevant to selection parameters*

1 BE-02-F-01 FRESH FRUIT DISTRIBUTOR BEXLEY
THAMES ROAD
CRAYFORD

Edge of Town
Industrial Zone
Total Gross floor area: 20400 sqm
*Survey date: THURSDAY 20/09/18 Survey Type: MANUAL*

2 HC-02-F-03 PPE DISTRIBUTION HAMPSHIRE
WARSASH ROAD
PARK GATE

Edge of Town
Industrial Zone
Total Gross floor area: 3665 sqm
*Survey date: MONDAY 27/09/21 Survey Type: MANUAL*

3 HD-02-F-01 FOOD DISTRIBUTOR HILLINGDON
NINE ACRES CLOSE
HAYES

Edge of Town
Industrial Zone
Total Gross floor area: 8673 sqm
*Survey date: THURSDAY 27/09/18 Survey Type: MANUAL*

4 KC-02-F-02 COMMERCIAL WAREHOUSING KENT
MILLS ROAD
AYLESFORD
QUARRY WOOD
Edge of Town
Industrial Zone
Total Gross floor area: 11200 sqm
*Survey date: FRIDAY 22/09/17 Survey Type: MANUAL*

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

*MANUALLY DESELECTED SITES*

| Site Ref | Reason for Deselection |
|---|---|
| BD-02-F-02 | Conducted during the Covid-19 pandemic |
| DV-02-F-01 | Use class not identified |
| EX-02-F-01 | Use class not identified |

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.244 | 4 | 10985 | 0.093 | 4 | 10985 | 0.337 |
| 08:00 - 09:00 | 4 | 10985 | 0.212 | 4 | 10985 | 0.100 | 4 | 10985 | 0.312 |
| 09:00 - 10:00 | 4 | 10985 | 0.162 | 4 | 10985 | 0.132 | 4 | 10985 | 0.294 |
| 10:00 - 11:00 | 4 | 10985 | 0.171 | 4 | 10985 | 0.157 | 4 | 10985 | 0.328 |
| 11:00 - 12:00 | 4 | 10985 | 0.162 | 4 | 10985 | 0.184 | 4 | 10985 | 0.346 |
| 12:00 - 13:00 | 4 | 10985 | 0.182 | 4 | 10985 | 0.182 | 4 | 10985 | 0.364 |
| 13:00 - 14:00 | 4 | 10985 | 0.173 | 4 | 10985 | 0.175 | 4 | 10985 | 0.348 |
| 14:00 - 15:00 | 4 | 10985 | 0.146 | 4 | 10985 | 0.187 | 4 | 10985 | 0.333 |
| 15:00 - 16:00 | 4 | 10985 | 0.112 | 4 | 10985 | 0.193 | 4 | 10985 | 0.305 |
| 16:00 - 17:00 | 4 | 10985 | 0.114 | 4 | 10985 | 0.180 | 4 | 10985 | 0.294 |
| 17:00 - 18:00 | 4 | 10985 | 0.096 | 4 | 10985 | 0.259 | 4 | 10985 | 0.355 |
| 18:00 - 19:00 | 4 | 10985 | 0.121 | 4 | 10985 | 0.118 | 4 | 10985 | 0.239 |
| 19:00 - 20:00 | 1 | 20400 | 0.044 | 1 | 20400 | 0.230 | 1 | 20400 | 0.274 |
| 20:00 - 21:00 | 1 | 20400 | 0.020 | 1 | 20400 | 0.029 | 1 | 20400 | 0.049 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 1.959 | | | 2.219 | | | 4.178 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

| | |
|---|---|
| Trip rate parameter range selected: | 3665 - 20400 (units: sqm) |
| Survey date date range: | 01/01/14 - 22/11/21 |
| Number of weekdays (Monday-Friday): | 4 |
| Number of Saturdays: | 0 |
| Number of Sundays: | 0 |
| Surveys automatically removed from selection: | 0 |
| Surveys manually removed from selection: | 3 |

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 08:00 - 09:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 | 4 | 10985 | 0.004 |
| 09:00 - 10:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 10:00 - 11:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 11:00 - 12:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 12:00 - 13:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 13:00 - 14:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 14:00 - 15:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 15:00 - 16:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 16:00 - 17:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 | 4 | 10985 | 0.004 |
| 17:00 - 18:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 18:00 - 19:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 19:00 - 20:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 20:00 - 21:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.004 | | | 0.004 | | | 0.008 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.025 | 4 | 10985 | 0.032 | 4 | 10985 | 0.057 |
| 08:00 - 09:00 | 4 | 10985 | 0.023 | 4 | 10985 | 0.023 | 4 | 10985 | 0.046 |
| 09:00 - 10:00 | 4 | 10985 | 0.030 | 4 | 10985 | 0.039 | 4 | 10985 | 0.069 |
| 10:00 - 11:00 | 4 | 10985 | 0.039 | 4 | 10985 | 0.048 | 4 | 10985 | 0.087 |
| 11:00 - 12:00 | 4 | 10985 | 0.036 | 4 | 10985 | 0.032 | 4 | 10985 | 0.068 |
| 12:00 - 13:00 | 4 | 10985 | 0.048 | 4 | 10985 | 0.048 | 4 | 10985 | 0.096 |
| 13:00 - 14:00 | 4 | 10985 | 0.041 | 4 | 10985 | 0.046 | 4 | 10985 | 0.087 |
| 14:00 - 15:00 | 4 | 10985 | 0.039 | 4 | 10985 | 0.032 | 4 | 10985 | 0.071 |
| 15:00 - 16:00 | 4 | 10985 | 0.023 | 4 | 10985 | 0.027 | 4 | 10985 | 0.050 |
| 16:00 - 17:00 | 4 | 10985 | 0.018 | 4 | 10985 | 0.018 | 4 | 10985 | 0.036 |
| 17:00 - 18:00 | 4 | 10985 | 0.014 | 4 | 10985 | 0.025 | 4 | 10985 | 0.039 |
| 18:00 - 19:00 | 4 | 10985 | 0.025 | 4 | 10985 | 0.009 | 4 | 10985 | 0.034 |
| 19:00 - 20:00 | 1 | 20400 | 0.020 | 1 | 20400 | 0.034 | 1 | 20400 | 0.054 |
| 20:00 - 21:00 | 1 | 20400 | 0.020 | 1 | 20400 | 0.005 | 1 | 20400 | 0.025 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.401 | | | 0.418 | | | 0.819 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 08:00 - 09:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 09:00 - 10:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 10:00 - 11:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 11:00 - 12:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 12:00 - 13:00 | 4 | 10985 | 0.005 | 4 | 10985 | 0.005 | 4 | 10985 | 0.010 |
| 13:00 - 14:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 14:00 - 15:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 | 4 | 10985 | 0.004 |
| 15:00 - 16:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 | 4 | 10985 | 0.004 |
| 16:00 - 17:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 17:00 - 18:00 | 4 | 10985 | 0.005 | 4 | 10985 | 0.005 | 4 | 10985 | 0.010 |
| 18:00 - 19:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 19:00 - 20:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 20:00 - 21:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.014 | | | 0.014 | | | 0.028 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 | 4 | 10985 | 0.004 |
| 08:00 - 09:00 | 4 | 10985 | 0.009 | 4 | 10985 | 0.000 | 4 | 10985 | 0.009 |
| 09:00 - 10:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 |
| 10:00 - 11:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.000 | 4 | 10985 | 0.002 |
| 11:00 - 12:00 | 4 | 10985 | 0.007 | 4 | 10985 | 0.000 | 4 | 10985 | 0.007 |
| 12:00 - 13:00 | 4 | 10985 | 0.005 | 4 | 10985 | 0.000 | 4 | 10985 | 0.005 |
| 13:00 - 14:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 | 4 | 10985 | 0.004 |
| 14:00 - 15:00 | 4 | 10985 | 0.009 | 4 | 10985 | 0.002 | 4 | 10985 | 0.011 |
| 15:00 - 16:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.011 | 4 | 10985 | 0.011 |
| 16:00 - 17:00 | 4 | 10985 | 0.014 | 4 | 10985 | 0.020 | 4 | 10985 | 0.034 |
| 17:00 - 18:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.007 | 4 | 10985 | 0.009 |
| 18:00 - 19:00 | 4 | 10985 | 0.007 | 4 | 10985 | 0.005 | 4 | 10985 | 0.012 |
| 19:00 - 20:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 20:00 - 21:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.005 | 1 | 20400 | 0.005 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.059 | | | 0.056 | | | 0.115 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.168 | 4 | 10985 | 0.023 | 4 | 10985 | 0.191 |
| 08:00 - 09:00 | 4 | 10985 | 0.141 | 4 | 10985 | 0.036 | 4 | 10985 | 0.177 |
| 09:00 - 10:00 | 4 | 10985 | 0.071 | 4 | 10985 | 0.030 | 4 | 10985 | 0.101 |
| 10:00 - 11:00 | 4 | 10985 | 0.064 | 4 | 10985 | 0.046 | 4 | 10985 | 0.110 |
| 11:00 - 12:00 | 4 | 10985 | 0.057 | 4 | 10985 | 0.082 | 4 | 10985 | 0.139 |
| 12:00 - 13:00 | 4 | 10985 | 0.055 | 4 | 10985 | 0.077 | 4 | 10985 | 0.132 |
| 13:00 - 14:00 | 4 | 10985 | 0.093 | 4 | 10985 | 0.084 | 4 | 10985 | 0.177 |
| 14:00 - 15:00 | 4 | 10985 | 0.075 | 4 | 10985 | 0.109 | 4 | 10985 | 0.184 |
| 15:00 - 16:00 | 4 | 10985 | 0.050 | 4 | 10985 | 0.116 | 4 | 10985 | 0.166 |
| 16:00 - 17:00 | 4 | 10985 | 0.064 | 4 | 10985 | 0.130 | 4 | 10985 | 0.194 |
| 17:00 - 18:00 | 4 | 10985 | 0.055 | 4 | 10985 | 0.200 | 4 | 10985 | 0.255 |
| 18:00 - 19:00 | 4 | 10985 | 0.075 | 4 | 10985 | 0.098 | 4 | 10985 | 0.173 |
| 19:00 - 20:00 | 1 | 20400 | 0.020 | 1 | 20400 | 0.181 | 1 | 20400 | 0.201 |
| 20:00 - 21:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.025 | 1 | 20400 | 0.025 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.988 | | | 1.237 | | | 2.225 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.048 | 4 | 10985 | 0.039 | 4 | 10985 | 0.087 |
| 08:00 - 09:00 | 4 | 10985 | 0.046 | 4 | 10985 | 0.039 | 4 | 10985 | 0.085 |
| 09:00 - 10:00 | 4 | 10985 | 0.061 | 4 | 10985 | 0.064 | 4 | 10985 | 0.125 |
| 10:00 - 11:00 | 4 | 10985 | 0.064 | 4 | 10985 | 0.064 | 4 | 10985 | 0.128 |
| 11:00 - 12:00 | 4 | 10985 | 0.068 | 4 | 10985 | 0.071 | 4 | 10985 | 0.139 |
| 12:00 - 13:00 | 4 | 10985 | 0.071 | 4 | 10985 | 0.052 | 4 | 10985 | 0.123 |
| 13:00 - 14:00 | 4 | 10985 | 0.036 | 4 | 10985 | 0.046 | 4 | 10985 | 0.082 |
| 14:00 - 15:00 | 4 | 10985 | 0.030 | 4 | 10985 | 0.041 | 4 | 10985 | 0.071 |
| 15:00 - 16:00 | 4 | 10985 | 0.027 | 4 | 10985 | 0.036 | 4 | 10985 | 0.063 |
| 16:00 - 17:00 | 4 | 10985 | 0.018 | 4 | 10985 | 0.025 | 4 | 10985 | 0.043 |
| 17:00 - 18:00 | 4 | 10985 | 0.020 | 4 | 10985 | 0.023 | 4 | 10985 | 0.043 |
| 18:00 - 19:00 | 4 | 10985 | 0.018 | 4 | 10985 | 0.011 | 4 | 10985 | 0.029 |
| 19:00 - 20:00 | 1 | 20400 | 0.005 | 1 | 20400 | 0.015 | 1 | 20400 | 0.020 |
| 20:00 - 21:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.512 | | | 0.526 | | | 1.038 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

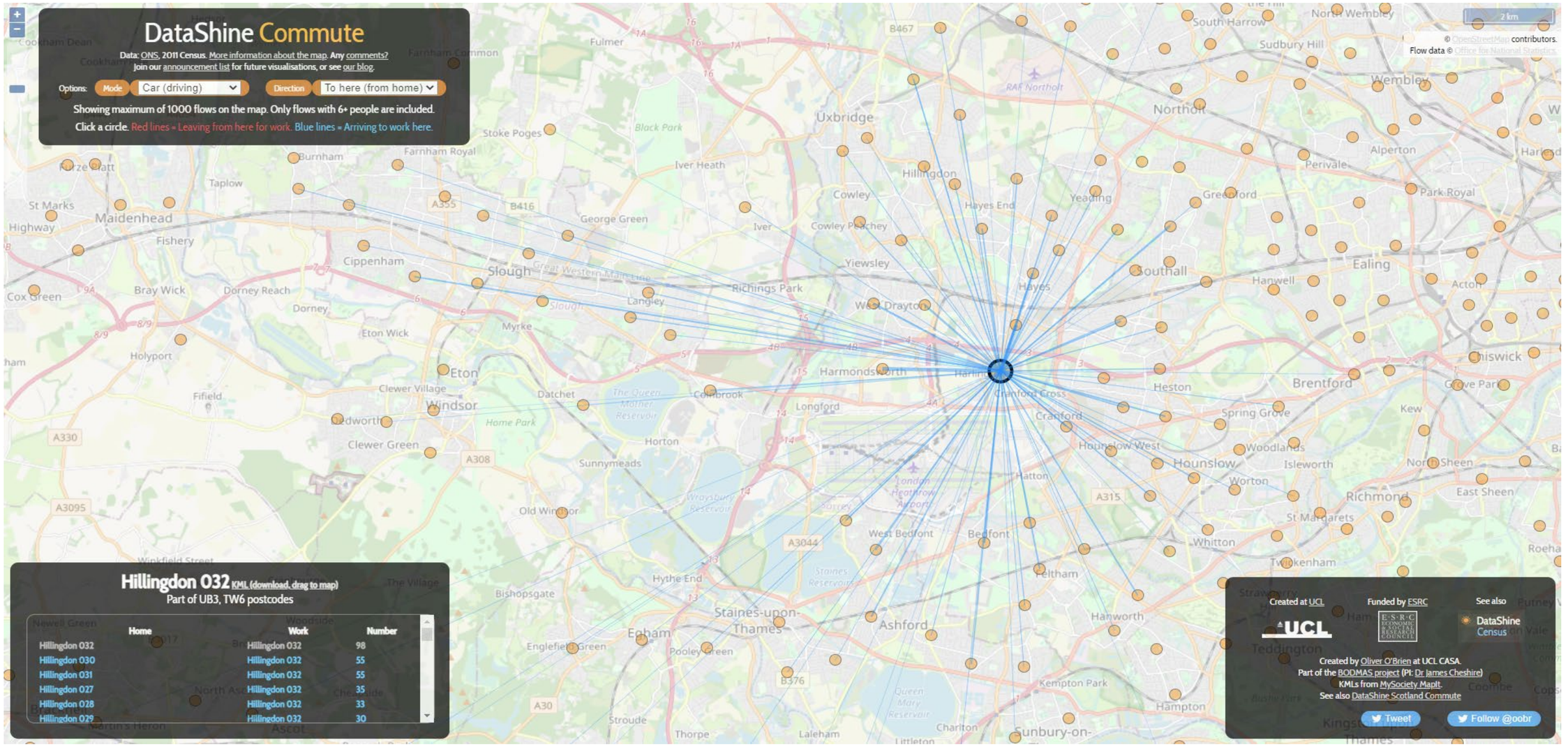
TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.000 | 4 | 10985 | 0.002 |
| 08:00 - 09:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 09:00 - 10:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 10:00 - 11:00 | 4 | 10985 | 0.005 | 4 | 10985 | 0.000 | 4 | 10985 | 0.005 |
| 11:00 - 12:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 | 4 | 10985 | 0.000 |
| 12:00 - 13:00 | 4 | 10985 | 0.005 | 4 | 10985 | 0.000 | 4 | 10985 | 0.005 |
| 13:00 - 14:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.000 | 4 | 10985 | 0.002 |
| 14:00 - 15:00 | 4 | 10985 | 0.000 | 4 | 10985 | 0.002 | 4 | 10985 | 0.002 |
| 15:00 - 16:00 | 4 | 10985 | 0.009 | 4 | 10985 | 0.011 | 4 | 10985 | 0.020 |
| 16:00 - 17:00 | 4 | 10985 | 0.011 | 4 | 10985 | 0.005 | 4 | 10985 | 0.016 |
| 17:00 - 18:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.007 | 4 | 10985 | 0.009 |
| 18:00 - 19:00 | 4 | 10985 | 0.002 | 4 | 10985 | 0.000 | 4 | 10985 | 0.002 |
| 19:00 - 20:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 20:00 - 21:00 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 | 1 | 20400 | 0.000 |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.038 | | | 0.025 | | | 0.063 |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

# APPENDIX F: Vehicle Trip Distribution




Note: The site is in Hillingdon 031 but this also contains Heathrow and the dataset is too large to derive a JTW distribution so the neighbouring COA (Hillingdon 032) has been selected

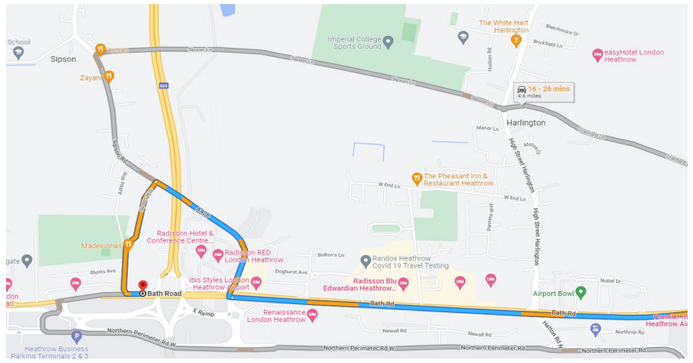
## Employment Arrivals

| Home | Work | Car (driving) | Assignment | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number (20+) | A4 Bath Road (West) | A4 Bath Road (East) | Sipson Way | A408 Sipson Road (North) | A408 Sipson Road (South) | Harlington High St | A312 The Parkway | A408 Stockley Road | Uxbridge Road | Harmondsworth Road | A3044 Hatch Lane | A4 Bath Road / Great West Road | Stanwell Moor Road | Northern Perimeter Road | A312 Faggs Road | M4 J5 |
| Ealing 017 | Hillingdon 032 | 24 | 24 | | 24 | 24 | | 24 | 24 | | | | | | | | | |
| Ealing 037 | Hillingdon 032 | 28 | 28 | | 28 | 28 | | 28 | | | | | | | | | | |
| Hillingdon 021 | Hillingdon 032 | 23 | 23 | | 23 | 23 | | | | 23 | 23 | | | | | | | |
| Hillingdon 023 | Hillingdon 032 | 23 | 23 | | 23 | 23 | | 23 | 23 | | | | | | | | | |
| Hillingdon 024 | Hillingdon 032 | 21 | 21 | | 21 | 21 | | | | 21 | | | | | | | | |
| Hillingdon 027 | Hillingdon 032 | 35 | 35 | | 35 | 35 | | 35 | | | | | | | | | | |
| Hillingdon 028 | Hillingdon 032 | 33 | 33 | | 33 | 33 | | | | 33 | | | | | | | | |
| Hillingdon 029 | Hillingdon 032 | 30 | 30 | | 30 | 30 | | | | | | 30 | | | | | | |
| Hillingdon 030 | Hillingdon 032 | 55 | 55 | | 55 | 55 | | 55 | | | | | | | | | | |
| Hillingdon 031 | Hillingdon 032 | 55 | 55 | | | | | | | | | | 55 | | | | | |
| Hillingdon 032 | Hillingdon 032 | 98 | 98 | | 98 | 98 | | 98 | | | | | | | | | | |
| Hounslow 010 | Hillingdon 032 | 21 | 21 | 21 | 21 | | 21 | | | | | | | 21 | | | | |
| Hounslow 011 | Hillingdon 032 | 27 | 27 | 27 | 27 | | 27 | | | | | | | 27 | | | | |
| Hounslow 013 | Hillingdon 032 | 22 | 22 | 22 | 22 | | 22 | | | | | | | | | | | |
| Hounslow 023 | Hillingdon 032 | 29 | 29 | | | | | | | | | | | | 29 | | | |
| Hounslow 025 | Hillingdon 032 | 22 | 22 | 22 | 22 | | 22 | | | | | | | 22 | | 22 | 22 | |
| Slough 008 | Hillingdon 032 | 26 | 26 | | | | | | | | | | | | | | | 26 |
| Spelthorne 001 | Hillingdon 032 | 20 | 20 | | | | | | | | | | | | 20 | | | |
| Spelthorne 003 | Hillingdon 032 | 23 | 23 | | | | | | | | | | | | 23 | | | |
| | | **615** | **615** | **92** | **462** | **370** | **92** | **263** | **47** | **77** | **23** | **30** | **55** | **70** | **72** | **22** | **22** | **26** |

| A4 Bath Road (West) | A4 Bath Road (East) | Sipson Way | A408 Sipson Road (North) | A408 Sipson Road (South) | Harlington High St | A312 The Parkway | A408 Stockley Road | Uxbridge Road | Harmondsworth Road | A3044 Hatch Lane | A4 Bath Road / Great West Road | Stanwell Moor Road | Northern Perimeter Road | A312 Faggs Road | M4 J5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100.0% | 15.0% | 75.1% | 60.2% | 15.0% | 42.8% | 7.6% | 12.5% | 3.7% | 4.9% | 8.9% | 11.4% | 11.7% | 3.6% | 3.6% | 4.2% |

Notes:
(1) Quickest typical journey time departing from home at 08:00 on Wednesday 8th June 2022 using Google Maps
(2) Hounslow 010/011/013 arrivals route

| North | East | South | West | Total |
|---|---|---|---|---|
| 60.2% | 11.4% | 3.6% | 24.9% | 100.0% |



## Employment Arrivals

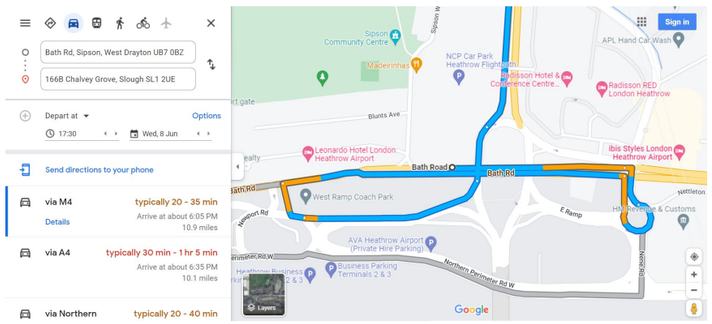
| Home | Work | Car (driving) | Assignment | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number (20+) | A4 Bath Road (West) | A4 Bath Road (East) | A408 Sipson Road (South) | Harlington High St | A408 Stockley Road | Uxbridge Road | Harmondsworth Road | Stanwell Moor Road | Northern Perimeter Road | A312 Faggs Road | Cranford High St | Southall Lane | A312 The Parkway (North) | Springwell Road | A3063 Upper Sutton Lane | Berkeley Avenue | A30 Great Southwest Road | A312 The Parkway (South) | Nene Road | M4 West Ramp / J4 |
| Ealing 017 | Hillingdon 032 | 24 | | 24 | | | | | | | | | 24 | 24 | | | | | | | | |
| Ealing 037 | Hillingdon 032 | 28 | | 28 | | | | | | | | | 28 | 28 | | | | | | | | |
| Hillingdon 021 | Hillingdon 032 | 23 | | 23 | 23 | | 23 | 23 | | | | | | | | | | | | | | |
| Hillingdon 023 | Hillingdon 032 | 23 | | 23 | | | | | | | | | 23 | | 23 | | | | | | | |
| Hillingdon 024 | Hillingdon 032 | 21 | | 21 | 21 | | 21 | | | | | | | | | | | | | | | |
| Hillingdon 027 | Hillingdon 032 | 35 | | 35 | | 35 | | | | | | | | | | | | | | | | |
| Hillingdon 028 | Hillingdon 032 | 33 | | 33 | 33 | | 33 | | | | | | | | | | | | | | | |
| Hillingdon 029 | Hillingdon 032 | 30 | | 30 | 30 | | | | 30 | | | | | | | | | | | | | |
| Hillingdon 030 | Hillingdon 032 | 55 | | 55 | | 55 | | | | | | | | | | | | | | | | |
| Hillingdon 031 | Hillingdon 032 | 55 | | 55 | 55 | | | | | | | | | | | | | | | | | |
| Hillingdon 032 | Hillingdon 032 | 98 | | 98 | | 98 | | | | | | | | | | | | | | | | |
| Hounslow 010 | Hillingdon 032 | 21 | | 21 | | | | | | | | | | | | 21 | | | | | | |
| Hounslow 011 | Hillingdon 032 | 27 | | 27 | | | | | | | | | | | | | 27 | | | | | |
| Hounslow 013 | Hillingdon 032 | 22 | | 22 | | | | | | | | | | | | | | 22 | | | | |
| Hounslow 023 | Hillingdon 032 | 29 | | 29 | | | | | | | 29 | | | | | | | | 29 | | 29 | |
| Hounslow 025 | Hillingdon 032 | 22 | | 22 | | | | | | | | 22 | | | | | | | | 22 | | |
| Slough 008 | Hillingdon 032 | 26 | 26 | 26 | | | | | | | | | | | | | | | | | 26 | 26 |
| Spelthorne 001 | Hillingdon 032 | 20 | 20 | 20 | | | | | | 20 | | | | | | | | | | | 20 | |
| Spelthorne 003 | Hillingdon 032 | 23 | | 23 | | | | | | | 23 | | | | | | | | 23 | | 23 | |
| | | **615** | **46** | **615** | **162** | **188** | **77** | **23** | **30** | **20** | **52** | **22** | **75** | **52** | **23** | **21** | **27** | **22** | **52** | **22** | **98** | **26** |

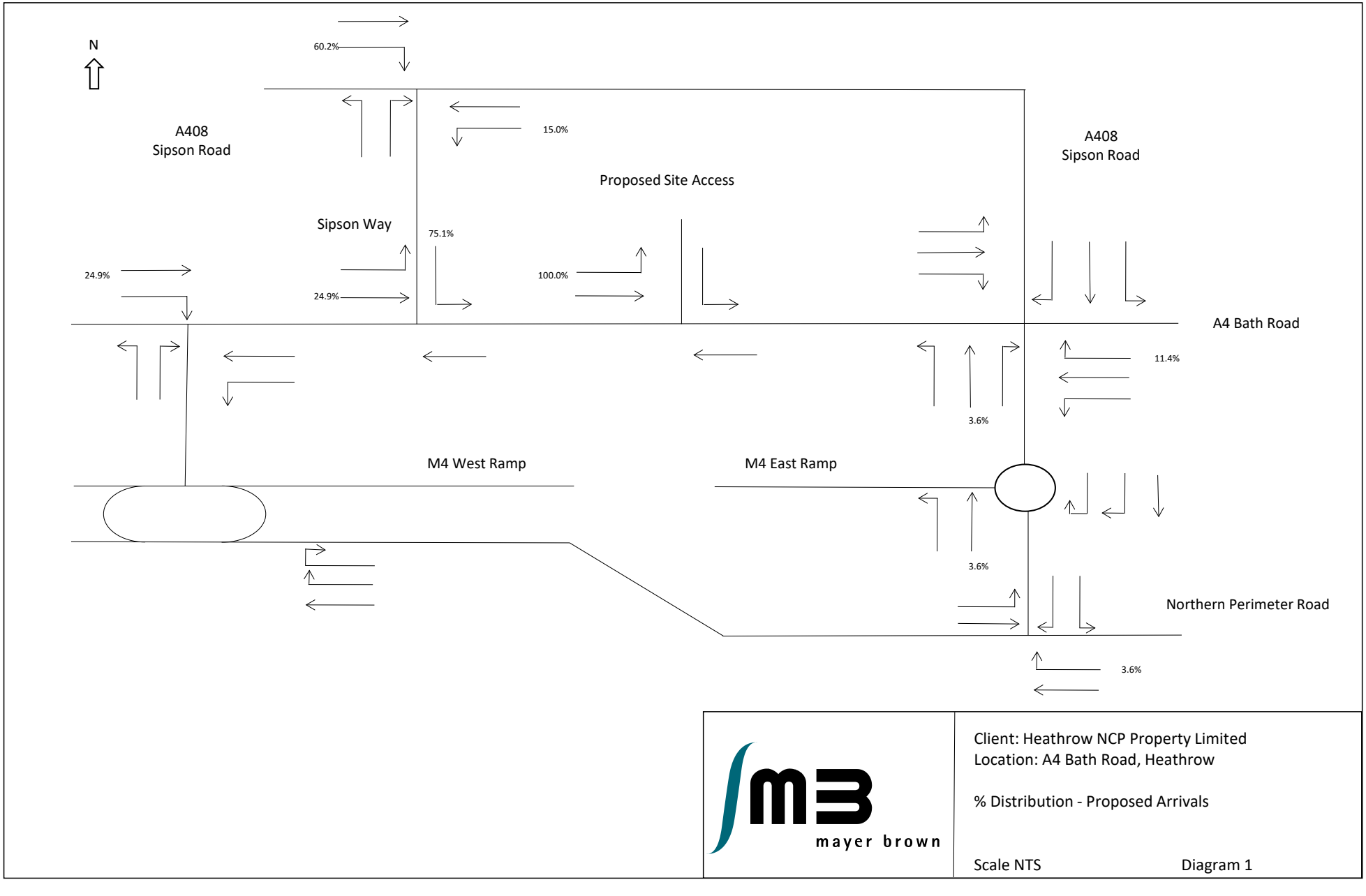
| A4 Bath Road (West) | A4 Bath Road (East) | A408 Sipson Road (South) | Harlington High St | A408 Stockley Road | Uxbridge Road | Harmondsworth Road | Stanwell Moor Road | Northern Perimeter Road | A312 Faggs Road | Cranford High St | Southall Lane | A312 The Parkway (North) | Springwell Road | A3063 Upper Sutton Lane | Berkeley Avenue | A30 Great Southwest Road | A312 The Parkway (South) | Nene Road | M4 West Ramp / J4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.5% | 100.0% | 26.3% | 30.6% | 12.5% | 3.7% | 4.9% | 3.3% | 8.5% | 3.6% | 12.2% | 8.5% | 3.7% | 3.4% | 4.4% | 3.6% | 8.5% | 3.6% | 15.9% | 4.2% |

Notes:
(1) Quickest typical journey time departing from workplace at 17:30 on Wednesday 8th June 2022 using Google Maps
(2) Slough 008 departures route

| North | South | West* | Total |
|---|---|---|---|
| 26.3% | 8.5% | 7.5% | 100.0% |

* traffic turns right into Nene Road heading south:
3.3%
4.2%





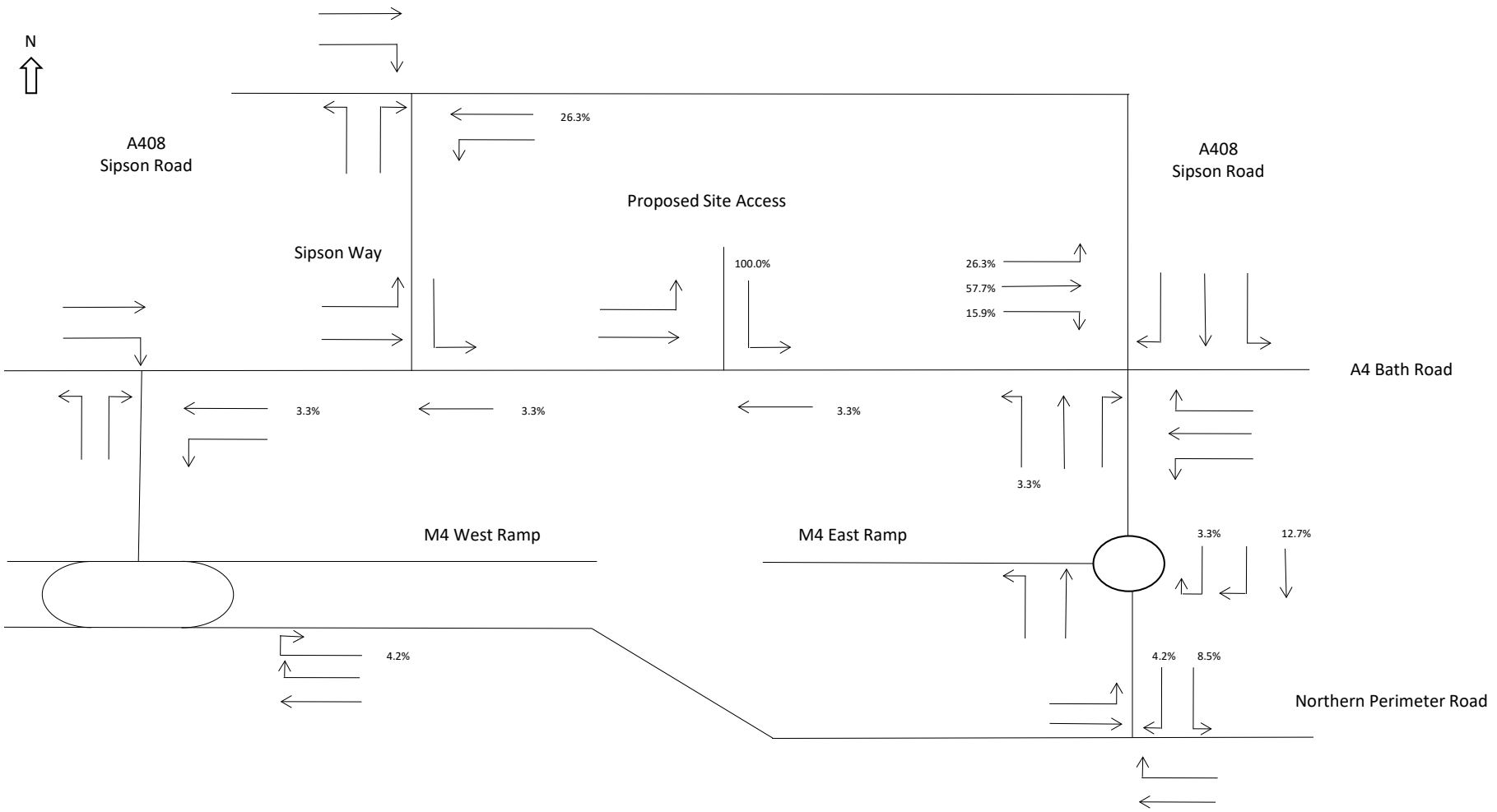

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

% Distribution - Proposed Arrivals

Scale NTS

Diagram 1




mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

% Distribution - Proposed Departures

Scale NTS

Diagram 2

| NCPHeathrow6.1 | | |
|---|---|---|
| Site Name: | NCP Heathrow | |
| Calculation Factor: | 100 | sqm |
| GFA / # of dwellings | 8,362 | sqm |

| | | |
|---|---|---|
| Development Scenario: | Proposed | B1c |
| Trip Rate for: | VEHICLES | |

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | | TRIPS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | Arr. | Dep. |
| Time Range | Days | GFA / units | Rate | Days | GFA / units | Rate | Days | GFA / units | Rate | | |
| 00:00-01:00 | | | | | | | | | | 0 | 0 |
| 01:00-02:00 | | | | | | | | | | 0 | 0 |
| 02:00-03:00 | | | | | | | | | | 0 | 0 |
| 03:00-04:00 | | | | | | | | | | 0 | 0 |
| 04:00-05:00 | | | | | | | | | | 0 | 0 |
| 05:00-06:00 | | | | | | | | | | 0 | 0 |
| 06:00-07:00 | | | | | | | | | | 0 | 0 |
| 07:00-08:00 | 13 | 4918 | 0.394 | 13 | 4918 | 0.102 | 13 | 4918 | 0.496 | 33 | 9 |
| 08:00-09:00 | 13 | 4918 | 0.529 | 13 | 4918 | 0.113 | 13 | 4918 | 0.642 | 44 | 9 |
| 09:00-10:00 | 13 | 4918 | 0.233 | 13 | 4918 | 0.155 | 13 | 4918 | 0.388 | 19 | 13 |
| 10:00-11:00 | 13 | 4918 | 0.172 | 13 | 4918 | 0.177 | 13 | 4918 | 0.349 | 14 | 15 |
| 11:00-12:00 | 13 | 4918 | 0.139 | 13 | 4918 | 0.147 | 13 | 4918 | 0.286 | 12 | 12 |
| 12:00-13:00 | 13 | 4918 | 0.18 | 13 | 4918 | 0.233 | 13 | 4918 | 0.413 | 15 | 19 |
| 13:00-14:00 | 13 | 4918 | 0.313 | 13 | 4918 | 0.214 | 13 | 4918 | 0.527 | 26 | 18 |
| 14:00-15:00 | 13 | 4918 | 0.135 | 13 | 4918 | 0.292 | 13 | 4918 | 0.427 | 11 | 24 |
| 15:00-16:00 | 13 | 4918 | 0.114 | 13 | 4918 | 0.153 | 13 | 4918 | 0.267 | 10 | 13 |
| 16:00-17:00 | 13 | 4918 | 0.128 | 13 | 4918 | 0.389 | 13 | 4918 | 0.517 | 11 | 33 |
| 17:00-18:00 | 13 | 4918 | 0.07 | 13 | 4918 | 0.446 | 13 | 4918 | 0.516 | 6 | 37 |
| 18:00-19:00 | 13 | 4918 | 0.053 | 13 | 4918 | 0.2 | 13 | 4918 | 0.253 | 4 | 17 |
| 19:00-20:00 | | | | | | | | | | 0 | 0 |
| 20:00-21:00 | | | | | | | | | | 0 | 0 |
| 21:00-22:00 | | | | | | | | | | 0 | 0 |
| 22:00-23:00 | | | | | | | | | | 0 | 0 |
| 23:00-24:00 | | | | | | | | | | 0 | 0 |
| Daily Trip Rates: | | | 3.003 | | | 3.025 | | | 6.028 | 206 | 219 |

| NCPHeathrow6.1 | | |
|---|---|---|
| Site Name: | NCP Heathrow | |
| Calculation Factor: | 100 | sqm |
| GFA / # of dwellings | 8362 | sqm |

| | | |
|---|---|---|
| Development Scenario: | Proposed | B1c |
| Trip Rate for: | OGVs | |

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | | TRIPS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | Arr. | Dep. |
| Time Range | Days | GFA / units | Rate | Days | GFA / units | Rate | Days | GFA / units | Rate | | |
| 00:00-01:00 | | | | | | | | | | 0 | 0 |
| 01:00-02:00 | | | | | | | | | | 0 | 0 |
| 02:00-03:00 | | | | | | | | | | 0 | 0 |
| 03:00-04:00 | | | | | | | | | | 0 | 0 |
| 04:00-05:00 | | | | | | | | | | 0 | 0 |
| 05:00-06:00 | | | | | | | | | | 0 | 0 |
| 06:00-07:00 | | | | | | | | | | 0 | 0 |
| 07:00-08:00 | 13 | 4918 | 0.023 | 13 | 4918 | 0.05 | 13 | 4918 | 0.073 | 2 | 4 |
| 08:00-09:00 | 13 | 4918 | 0.044 | 13 | 4918 | 0.038 | 13 | 4918 | 0.082 | 4 | 3 |
| 09:00-10:00 | 13 | 4918 | 0.052 | 13 | 4918 | 0.052 | 13 | 4918 | 0.104 | 4 | 4 |
| 10:00-11:00 | 13 | 4918 | 0.058 | 13 | 4918 | 0.061 | 13 | 4918 | 0.119 | 5 | 5 |
| 11:00-12:00 | 13 | 4918 | 0.056 | 13 | 4918 | 0.059 | 13 | 4918 | 0.115 | 5 | 5 |
| 12:00-13:00 | 13 | 4918 | 0.05 | 13 | 4918 | 0.053 | 13 | 4918 | 0.103 | 4 | 4 |
| 13:00-14:00 | 13 | 4918 | 0.039 | 13 | 4918 | 0.041 | 13 | 4918 | 0.08 | 3 | 3 |
| 14:00-15:00 | 13 | 4918 | 0.048 | 13 | 4918 | 0.044 | 13 | 4918 | 0.092 | 4 | 4 |
| 15:00-16:00 | 13 | 4918 | 0.036 | 13 | 4918 | 0.023 | 13 | 4918 | 0.059 | 3 | 2 |
| 16:00-17:00 | 13 | 4918 | 0.038 | 13 | 4918 | 0.025 | 13 | 4918 | 0.063 | 3 | 2 |
| 17:00-18:00 | 13 | 4918 | 0.011 | 13 | 4918 | 0.008 | 13 | 4918 | 0.019 | 1 | 1 |
| 18:00-19:00 | 13 | 4918 | 0.006 | 13 | 4918 | 0.008 | 13 | 4918 | 0.014 | 1 | 1 |
| 19:00-20:00 | | | | | | | | | | 0 | 0 |
| 20:00-21:00 | | | | | | | | | | 0 | 0 |
| 21:00-22:00 | | | | | | | | | | 0 | 0 |
| 22:00-23:00 | | | | | | | | | | 0 | 0 |
| 23:00-24:00 | | | | | | | | | | 0 | 0 |
| Daily Trip Rates: | | | 0.476 | | | 0.659 | | | 1.135 | 39 | 39 |

| NCPHeathrow6.1 | | |
|---|---|---|
| Site Name: | NCP Heathrow | |
| Calculation Factor: | 100 | sqm |
| GFA / # of dwellings | 8,362 | sqm |

| | | |
|---|---|---|
| Development Scenario: | Proposed | B2 (Industrial Units) |
| Trip Rate for: | VEHICLES | |

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | | TRIPS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | Arr. | Dep. |
| Time Range | Days | GFA / units | Rate | Days | GFA / units | Rate | Days | GFA / units | Rate | | |
| 00:00-01:00 | | | | | | | | | | 0 | 0 |
| 01:00-02:00 | | | | | | | | | | 0 | 0 |
| 02:00-03:00 | | | | | | | | | | 0 | 0 |
| 03:00-04:00 | | | | | | | | | | 0 | 0 |
| 04:00-05:00 | | | | | | | | | | 0 | 0 |
| 05:00-06:00 | | | | | | | | | | 0 | 0 |
| 06:00-07:00 | 3 | 27592 | 0.315 | 3 | 27592 | 0.074 | 3 | 27592 | 0.389 | 26 | 6 |
| 07:00-08:00 | 16 | 9746 | 0.31 | 16 | 9746 | 0.077 | 16 | 9746 | 0.387 | 26 | 6 |
| 08:00-09:00 | 16 | 9746 | 0.259 | 16 | 9746 | 0.052 | 16 | 9746 | 0.311 | 22 | 4 |
| 09:00-10:00 | 17 | 9187 | 0.147 | 17 | 9187 | 0.089 | 17 | 9187 | 0.236 | 12 | 7 |
| 10:00-11:00 | 17 | 9187 | 0.102 | 17 | 9187 | 0.07 | 17 | 9187 | 0.172 | 9 | 6 |
| 11:00-12:00 | 17 | 9187 | 0.078 | 17 | 9187 | 0.069 | 17 | 9187 | 0.147 | 7 | 6 |
| 12:00-13:00 | 17 | 9187 | 0.103 | 17 | 9187 | 0.117 | 17 | 9187 | 0.22 | 9 | 10 |
| 13:00-14:00 | 17 | 9187 | 0.223 | 17 | 9187 | 0.133 | 17 | 9187 | 0.356 | 19 | 11 |
| 14:00-15:00 | 17 | 9187 | 0.282 | 17 | 9187 | 0.349 | 17 | 9187 | 0.631 | 24 | 29 |
| 15:00-16:00 | 17 | 9187 | 0.081 | 17 | 9187 | 0.248 | 17 | 9187 | 0.329 | 7 | 21 |
| 16:00-17:00 | 17 | 9187 | 0.067 | 17 | 9187 | 0.29 | 17 | 9187 | 0.357 | 6 | 24 |
| 17:00-18:00 | 17 | 9187 | 0.048 | 17 | 9187 | 0.255 | 17 | 9187 | 0.303 | 4 | 21 |
| 18:00-19:00 | 16 | 9380 | 0.055 | 16 | 9380 | 0.143 | 16 | 9380 | 0.198 | 5 | 12 |
| 19:00-20:00 | 3 | 5824 | 0.011 | 3 | 5824 | 0.006 | 3 | 5824 | 0.017 | 1 | 1 |
| 20:00-21:00 | | | | | | | | | | 0 | 0 |
| 21:00-22:00 | | | | | | | | | | 0 | 0 |
| 22:00-23:00 | | | | | | | | | | 0 | 0 |
| 23:00-24:00 | | | | | | | | | | 0 | 0 |
| Daily Trip Rates: | | | 2.081 | | | 1.972 | | | 4.053 | 174 | 165 |

| NCPHeathrow6.1 | | |
|---|---|---|
| Site Name: | NCP Heathrow | |
| Calculation Factor: | 100 | sqm |
| GFA / # of dwellings | 8362 | sqm |

| | | |
|---|---|---|
| Development Scenario: | Proposed | B2 (Industrial Units) |
| Trip Rate for: | OGVs | |

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | | TRIPS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | Arr. | Dep. |
| Time Range | Days | GFA / units | Rate | Days | GFA / units | Rate | Days | GFA / units | Rate | | |
| 00:00-01:00 | | | | | | | | | | 0 | 0 |
| 01:00-02:00 | | | | | | | | | | 0 | 0 |
| 02:00-03:00 | | | | | | | | | | 0 | 0 |
| 03:00-04:00 | | | | | | | | | | 0 | 0 |
| 04:00-05:00 | | | | | | | | | | 0 | 0 |
| 05:00-06:00 | | | | | | | | | | 0 | 0 |
| 06:00-07:00 | 3 | 27592 | 0.008 | 3 | 27592 | 0.006 | 3 | 27592 | 0.014 | 1 | 1 |
| 07:00-08:00 | 16 | 9746 | 0.015 | 16 | 9746 | 0.017 | 16 | 9746 | 0.032 | 1 | 1 |
| 08:00-09:00 | 16 | 9746 | 0.02 | 16 | 9746 | 0.02 | 16 | 9746 | 0.04 | 2 | 2 |
| 09:00-10:00 | 17 | 9187 | 0.034 | 17 | 9187 | 0.024 | 17 | 9187 | 0.058 | 3 | 2 |
| 10:00-11:00 | 17 | 9187 | 0.024 | 17 | 9187 | 0.019 | 17 | 9187 | 0.043 | 2 | 2 |
| 11:00-12:00 | 17 | 9187 | 0.022 | 17 | 9187 | 0.015 | 17 | 9187 | 0.037 | 2 | 1 |
| 12:00-13:00 | 17 | 9187 | 0.028 | 17 | 9187 | 0.024 | 17 | 9187 | 0.052 | 2 | 2 |
| 13:00-14:00 | 17 | 9187 | 0.024 | 17 | 9187 | 0.017 | 17 | 9187 | 0.041 | 2 | 1 |
| 14:00-15:00 | 17 | 9187 | 0.02 | 17 | 9187 | 0.012 | 17 | 9187 | 0.032 | 2 | 1 |
| 15:00-16:00 | 17 | 9187 | 0.013 | 17 | 9187 | 0.01 | 17 | 9187 | 0.023 | 1 | 1 |
| 16:00-17:00 | 17 | 9187 | 0.009 | 17 | 9187 | 0.011 | 17 | 9187 | 0.02 | 1 | 1 |
| 17:00-18:00 | 17 | 9187 | 0.01 | 17 | 9187 | 0.006 | 17 | 9187 | 0.016 | 1 | 1 |
| 18:00-19:00 | 16 | 9380 | 0.007 | 16 | 9380 | 0.011 | 16 | 9380 | 0.018 | 1 | 1 |
| 19:00-20:00 | 3 | 5824 | 0.006 | 3 | 5824 | 0 | 3 | 5824 | 0.006 | 1 | 0 |
| 20:00-21:00 | | | | | | | | | | 0 | 0 |
| 21:00-22:00 | | | | | | | | | | 0 | 0 |
| 22:00-23:00 | | | | | | | | | | 0 | 0 |
| 23:00-24:00 | | | | | | | | | | 0 | 0 |
| Daily Trip Rates: | | | 0.371 | | | 0.359 | | | 0.730 | 20 | 16 |

| NCPHeathrow6.1 | | |
|---|---|---|
| Site Name: | NCP Heathrow | |
| Calculation Factor: | 100 | sqm |
| GFA / # of dwellings | 8,362 | sqm |

| | | |
|---|---|---|
| Development Scenario: | Proposed | B8 |
| Trip Rate for: | VEHICLES | |

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | | TRIPS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | Arr. | Dep. |
| Time Range | Days | GFA / units | Rate | Days | GFA / units | Rate | Days | GFA / units | Rate | | |
| 00:00-01:00 | | | | | | | | | | 0 | 0 |
| 01:00-02:00 | | | | | | | | | | 0 | 0 |
| 02:00-03:00 | | | | | | | | | | 0 | 0 |
| 03:00-04:00 | | | | | | | | | | 0 | 0 |
| 04:00-05:00 | | | | | | | | | | 0 | 0 |
| 05:00-06:00 | | | | | | | | | | 0 | 0 |
| 06:00-07:00 | | | | | | | | | | 0 | 0 |
| 07:00-08:00 | 4 | 10985 | 0.244 | 4 | 10985 | 0.093 | 4 | 10985 | 0.337 | 20 | 8 |
| 08:00-09:00 | 4 | 10985 | 0.212 | 4 | 10985 | 0.1 | 4 | 10985 | 0.312 | 18 | 8 |
| 09:00-10:00 | 4 | 10985 | 0.162 | 4 | 10985 | 0.132 | 4 | 10985 | 0.294 | 14 | 11 |
| 10:00-11:00 | 4 | 10985 | 0.171 | 4 | 10985 | 0.157 | 4 | 10985 | 0.328 | 14 | 13 |
| 11:00-12:00 | 4 | 10985 | 0.162 | 4 | 10985 | 0.184 | 4 | 10985 | 0.346 | 14 | 15 |
| 12:00-13:00 | 4 | 10985 | 0.182 | 4 | 10985 | 0.182 | 4 | 10985 | 0.364 | 15 | 15 |
| 13:00-14:00 | 4 | 10985 | 0.173 | 4 | 10985 | 0.175 | 4 | 10985 | 0.348 | 14 | 15 |
| 14:00-15:00 | 4 | 10985 | 0.146 | 4 | 10985 | 0.187 | 4 | 10985 | 0.333 | 12 | 16 |
| 15:00-16:00 | 4 | 10985 | 0.112 | 4 | 10985 | 0.193 | 4 | 10985 | 0.305 | 9 | 16 |
| 16:00-17:00 | 4 | 10985 | 0.114 | 4 | 10985 | 0.18 | 4 | 10985 | 0.294 | 10 | 15 |
| 17:00-18:00 | 4 | 10985 | 0.096 | 4 | 10985 | 0.259 | 4 | 10985 | 0.355 | 8 | 22 |
| 18:00-19:00 | 4 | 10985 | 0.121 | 4 | 10985 | 0.118 | 4 | 10985 | 0.239 | 10 | 10 |
| 19:00-20:00 | | | | | | | | | | 0 | 0 |
| 20:00-21:00 | | | | | | | | | | 0 | 0 |
| 21:00-22:00 | | | | | | | | | | 0 | 0 |
| 22:00-23:00 | | | | | | | | | | 0 | 0 |
| 23:00-24:00 | | | | | | | | | | 0 | 0 |
| Daily Trip Rates: | | | 1.959 | | | 2.219 | | | 4.178 | 158 | 164 |

| NCPHeathrow6.1 | | |
|---|---|---|
| Site Name: | NCP Heathrow | |
| Calculation Factor: | 100 | sqm |
| GFA / # of dwellings | 8362 | sqm |

| | | |
|---|---|---|
| Development Scenario: | Proposed | B8 |
| Trip Rate for: | OGVs | |

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | | TRIPS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | Arr. | Dep. |
| Time Range | Days | GFA / units | Rate | Days | GFA / units | Rate | Days | GFA / units | Rate | | |
| 00:00-01:00 | | | | | | | | | | 0 | 0 |
| 01:00-02:00 | | | | | | | | | | 0 | 0 |
| 02:00-03:00 | | | | | | | | | | 0 | 0 |
| 03:00-04:00 | | | | | | | | | | 0 | 0 |
| 04:00-05:00 | | | | | | | | | | 0 | 0 |
| 05:00-06:00 | | | | | | | | | | 0 | 0 |
| 06:00-07:00 | | | | | | | | | | 0 | 0 |
| 07:00-08:00 | 4 | 10985 | 0.025 | 4 | 10985 | 0.032 | 4 | 10985 | 0.057 | 2 | 3 |
| 08:00-09:00 | 4 | 10985 | 0.023 | 4 | 10985 | 0.023 | 4 | 10985 | 0.046 | 2 | 2 |
| 09:00-10:00 | 4 | 10985 | 0.03 | 4 | 10985 | 0.039 | 4 | 10985 | 0.069 | 3 | 3 |
| 10:00-11:00 | 4 | 10985 | 0.039 | 4 | 10985 | 0.048 | 4 | 10985 | 0.087 | 3 | 4 |
| 11:00-12:00 | 4 | 10985 | 0.036 | 4 | 10985 | 0.032 | 4 | 10985 | 0.068 | 3 | 3 |
| 12:00-13:00 | 4 | 10985 | 0.048 | 4 | 10985 | 0.048 | 4 | 10985 | 0.096 | 4 | 4 |
| 13:00-14:00 | 4 | 10985 | 0.041 | 4 | 10985 | 0.046 | 4 | 10985 | 0.087 | 3 | 4 |
| 14:00-15:00 | 4 | 10985 | 0.039 | 4 | 10985 | 0.032 | 4 | 10985 | 0.071 | 3 | 3 |
| 15:00-16:00 | 4 | 10985 | 0.023 | 4 | 10985 | 0.027 | 4 | 10985 | 0.05 | 2 | 2 |
| 16:00-17:00 | 4 | 10985 | 0.018 | 4 | 10985 | 0.018 | 4 | 10985 | 0.036 | 2 | 2 |
| 17:00-18:00 | 4 | 10985 | 0.014 | 4 | 10985 | 0.025 | 4 | 10985 | 0.039 | 1 | 2 |
| 18:00-19:00 | 4 | 10985 | 0.025 | 4 | 10985 | 0.009 | 4 | 10985 | 0.034 | 2 | 1 |
| 19:00-20:00 | | | | | | | | | | 0 | 0 |
| 20:00-21:00 | | | | | | | | | | 0 | 0 |
| 21:00-22:00 | | | | | | | | | | 0 | 0 |
| 22:00-23:00 | | | | | | | | | | 0 | 0 |
| 23:00-24:00 | | | | | | | | | | 0 | 0 |
| Daily Trip Rates: | | | 0.401 | | | 0.418 | | | 0.819 | 30 | 32 |

| Net Change | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| Existing NCP | 10 | 9 | 4 | 6 |
| Proposed B2 | 22 | 4 | 4 | 21 |
| Net Change B2 | 12 | -5 | 0 | 15 |

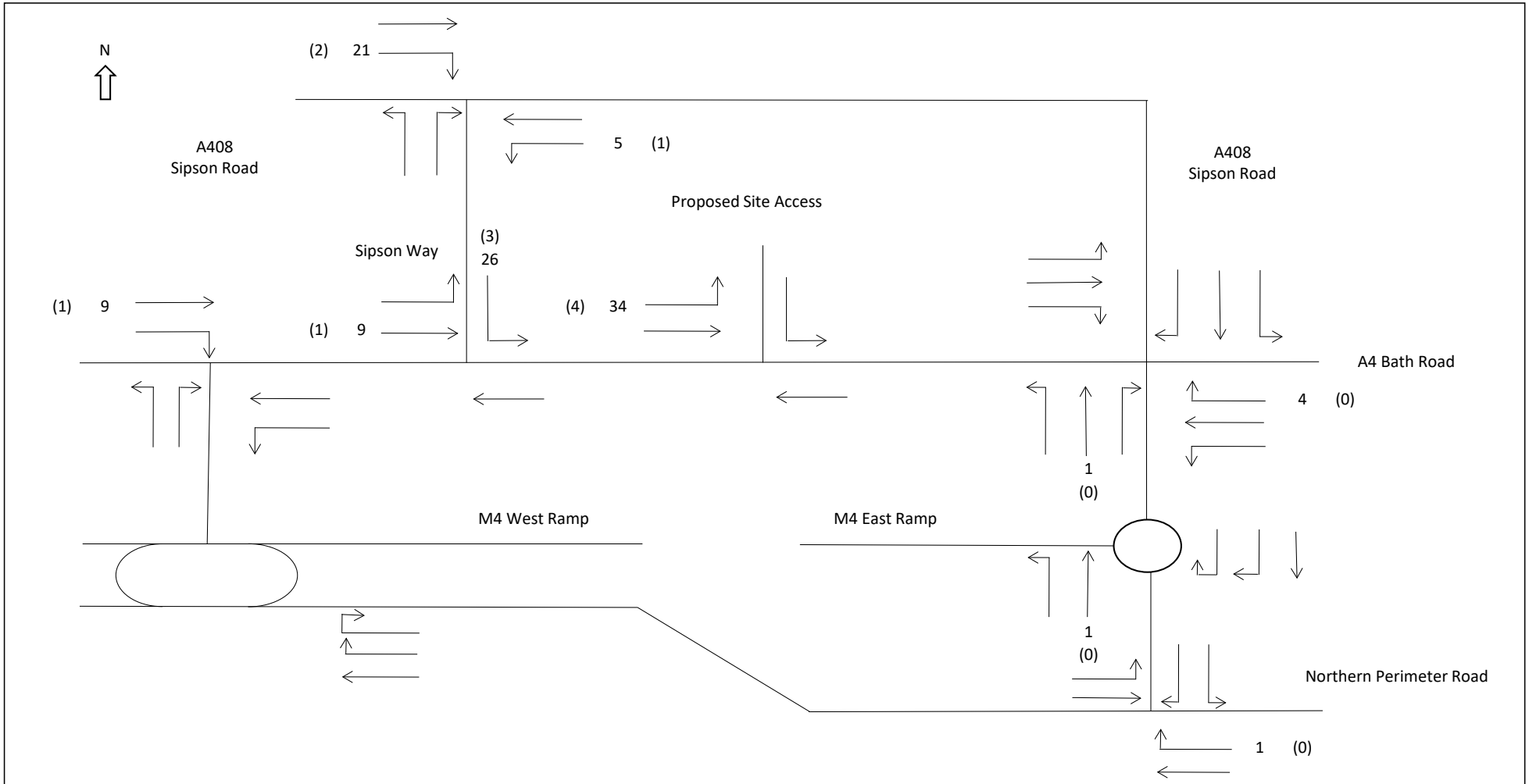
**Table 5.6: Proposed Development Vehicle Trip Generation – B2**

| Net Change | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| Existing NCP | 10 | 9 | 4 | 6 |
| Proposed B8 | 18 | 8 | 8 | 22 |
| Net Change B8 | 8 | -1 | 4 | 16 |

**Table 5.7: Proposed Development Vehicle Trip Generation – B8**

| Net Change | AM Peak (08:00-09:00) | | PM Peak (17:00-18:00) | |
|---|---|---|---|---|
| | Arrivals | Departures | Arrivals | Departures |
| Existing NCP | 10 | 9 | 4 | 6 |
| Proposed E(g)(iii) | 44 | 9 | 6 | 37 |
| Net Change E(g)(iii) | 34 | 0 | 2 | 31 |

**Table 5.8: Proposed Development Vehicle Trip Generation – E(g)(iii)**




Key:
232 Total Vehicles
(2) HGV's

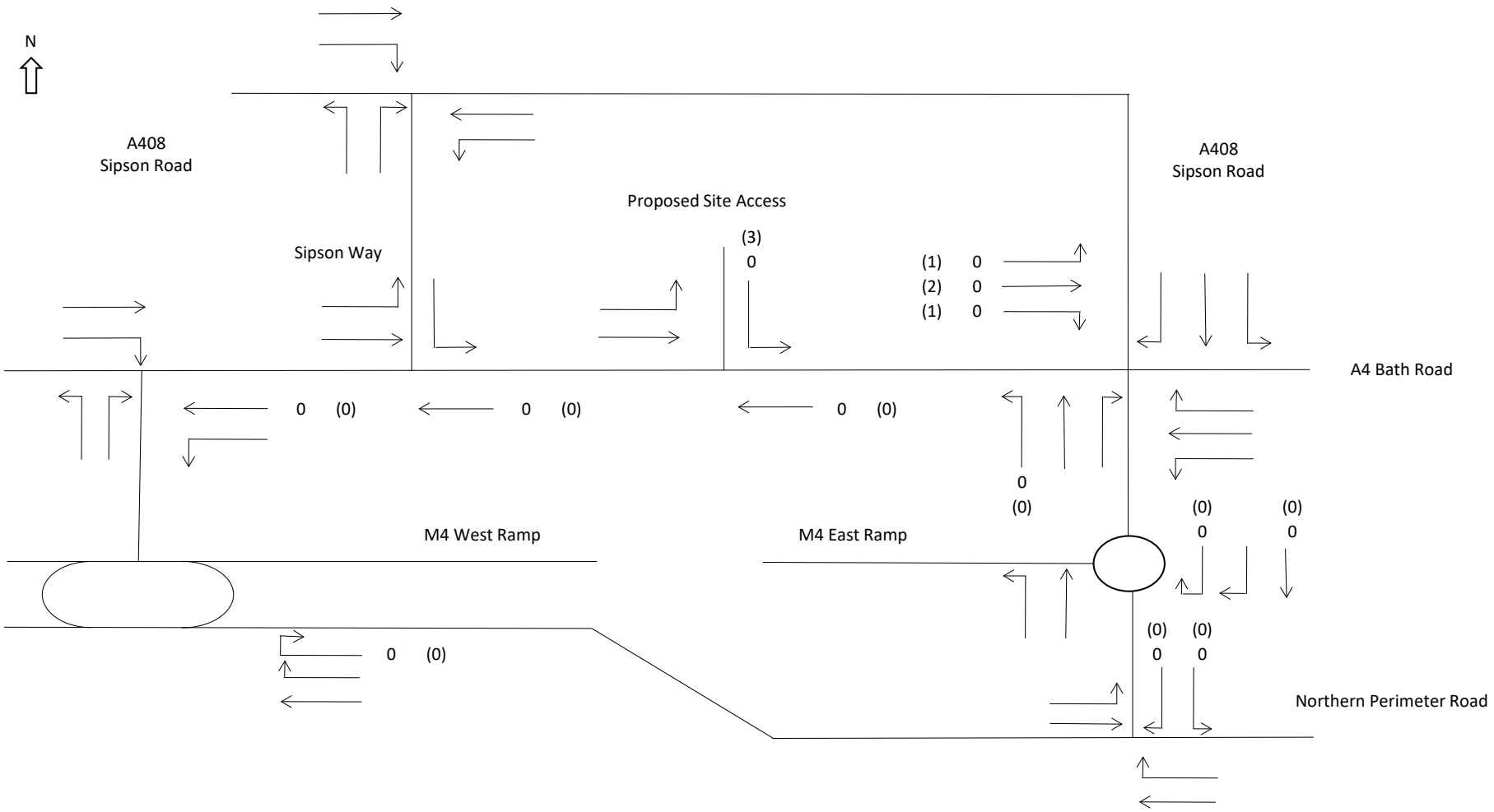
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 34 | 0 |
| HGV | 4 | 3 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B1c Net Arrivals
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 3




Key:
232 Total Vehicles
(2) HGV's

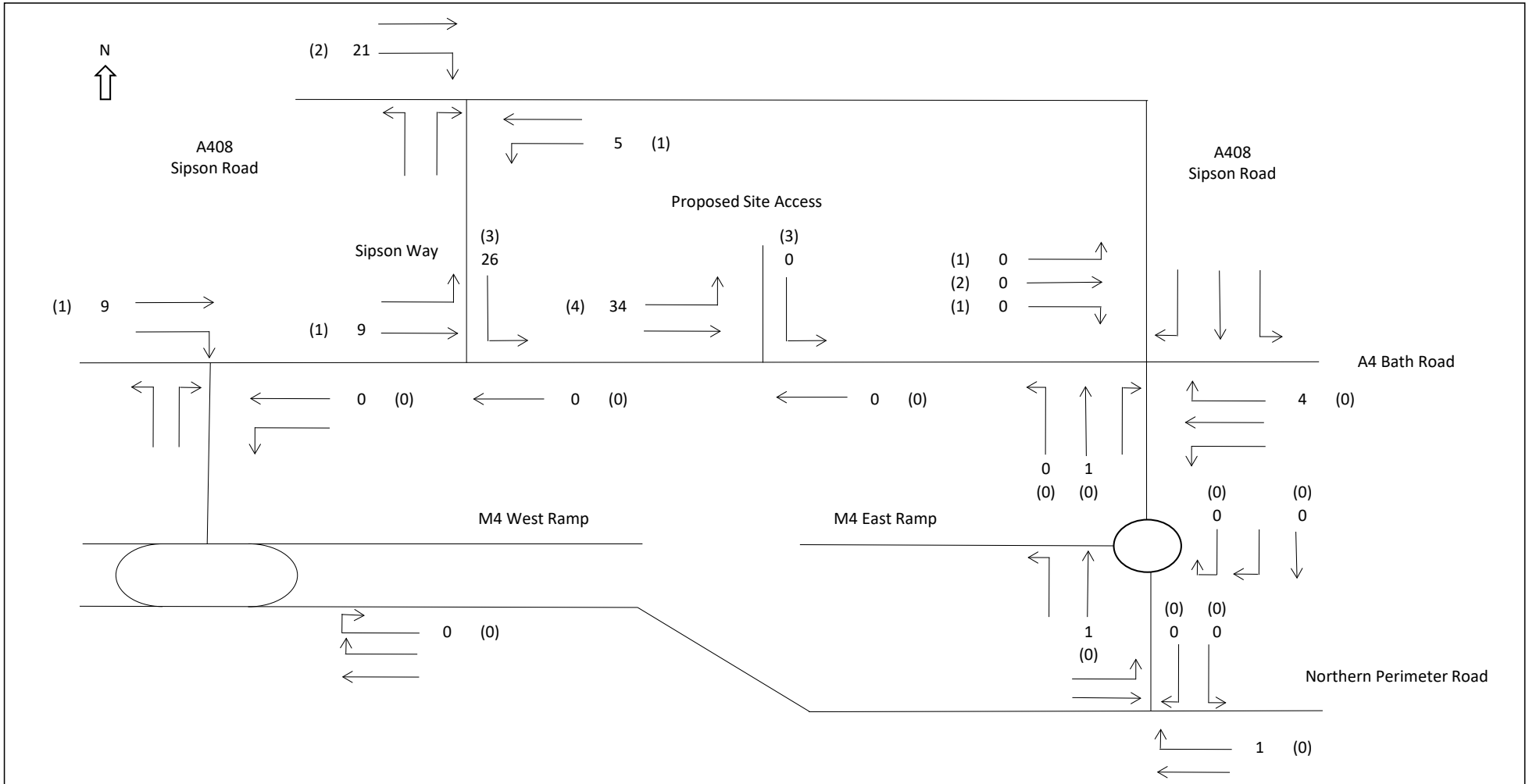
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 34 | 0 |
| HGV | 4 | 3 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B1c Net Departures
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 4




Key:
232 Total Vehicles
(2) HGV's

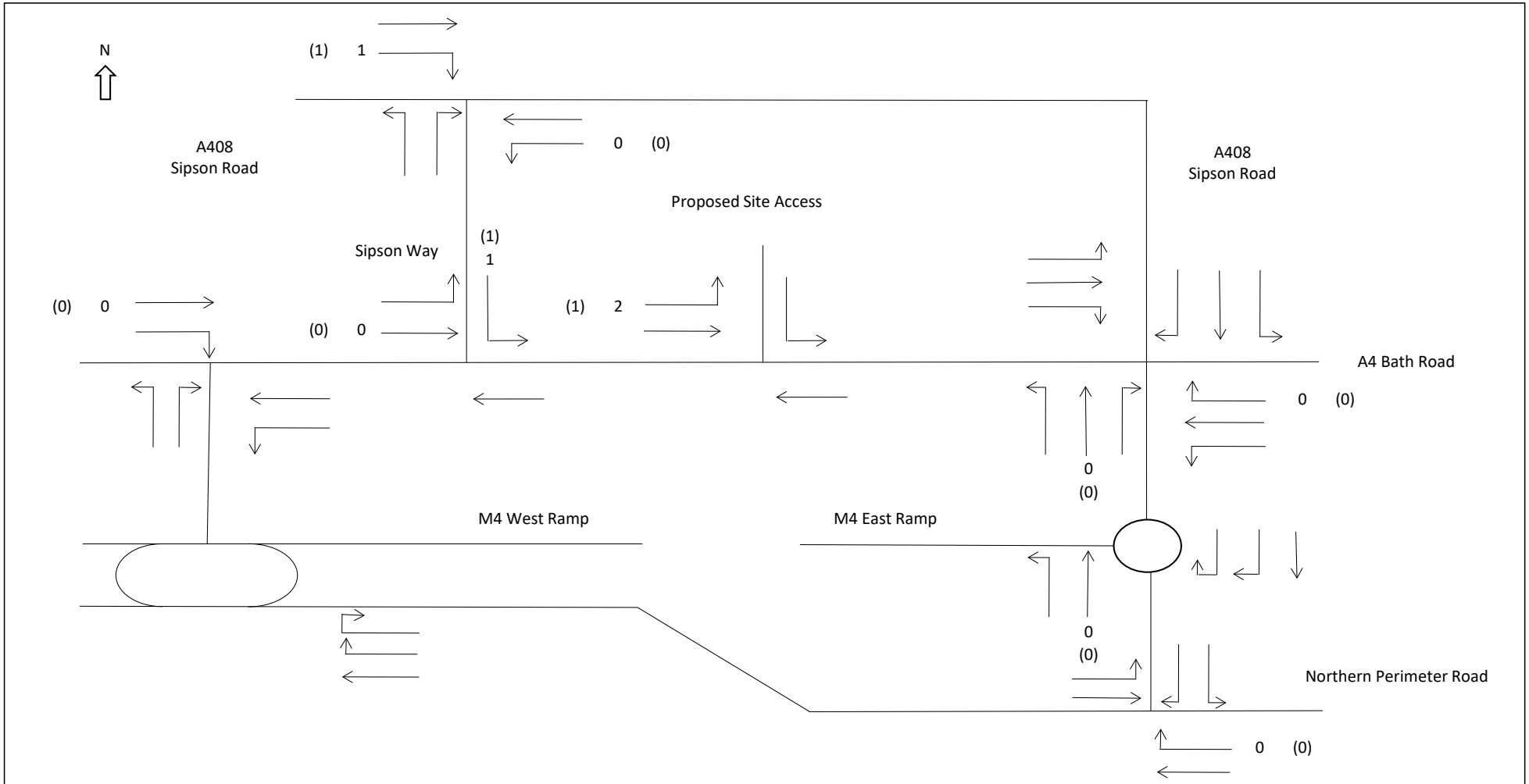
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 34 | 0 |
| HGV | 4 | 3 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B1c Net Total Vehicle Flows
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 5




Key:
232 Total Vehicles
(2) HGV's

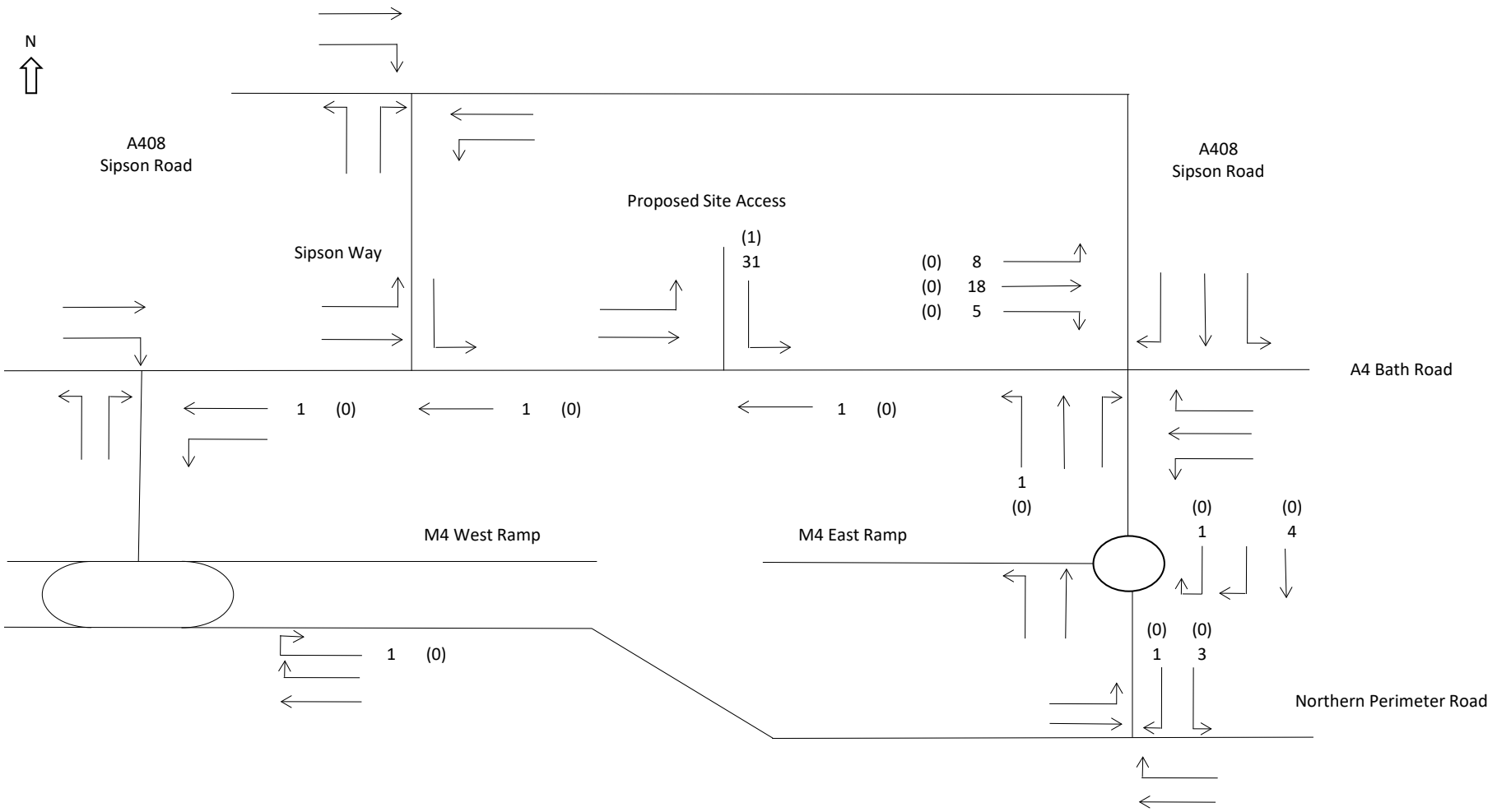
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 2 | 31 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B1c Net Arrivals
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 6




Key:
232 Total Vehicles
(2) HGV's

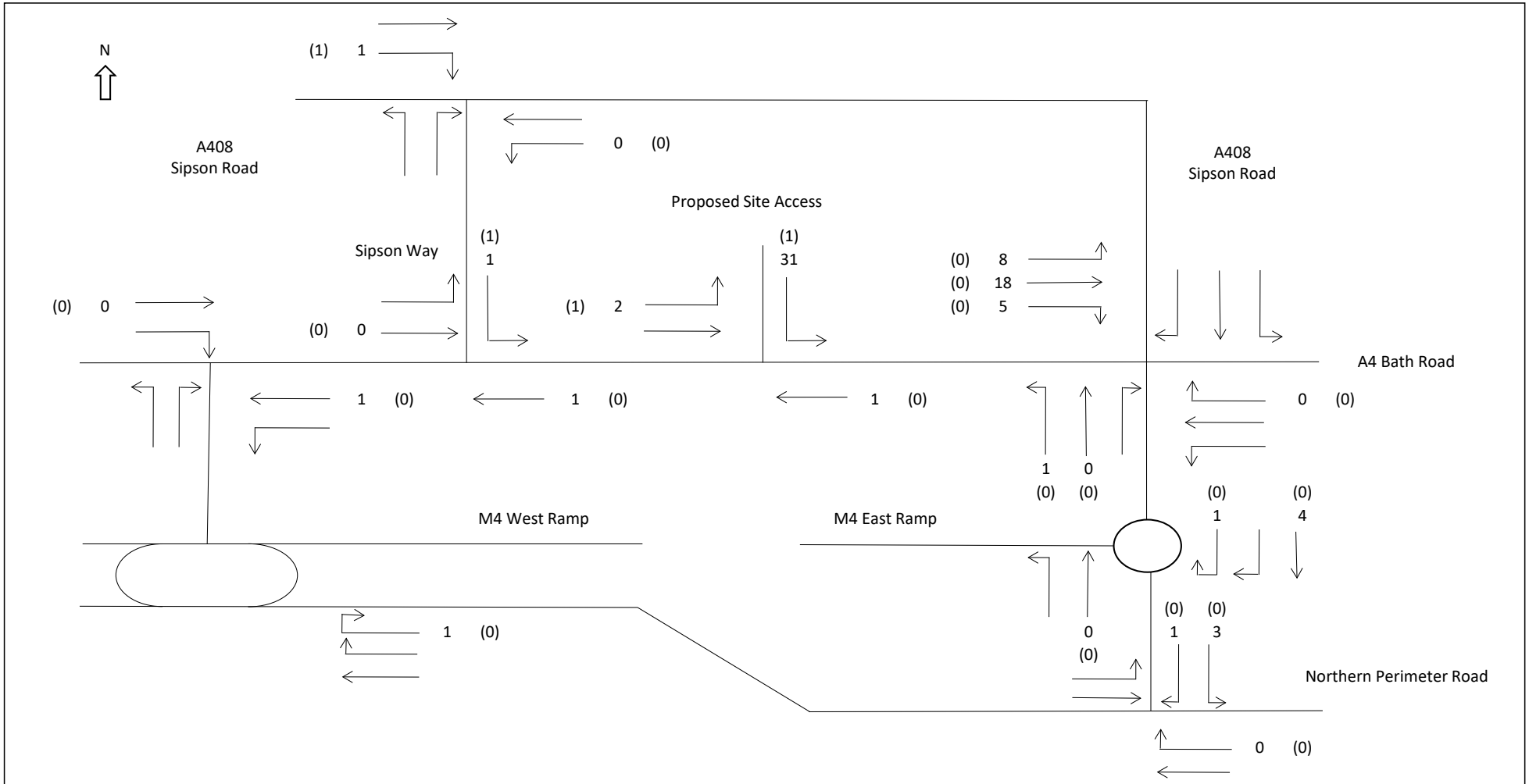
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 2 | 31 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B1c Net Departures
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 7




Key:
232 Total Vehicles
(2) HGV's

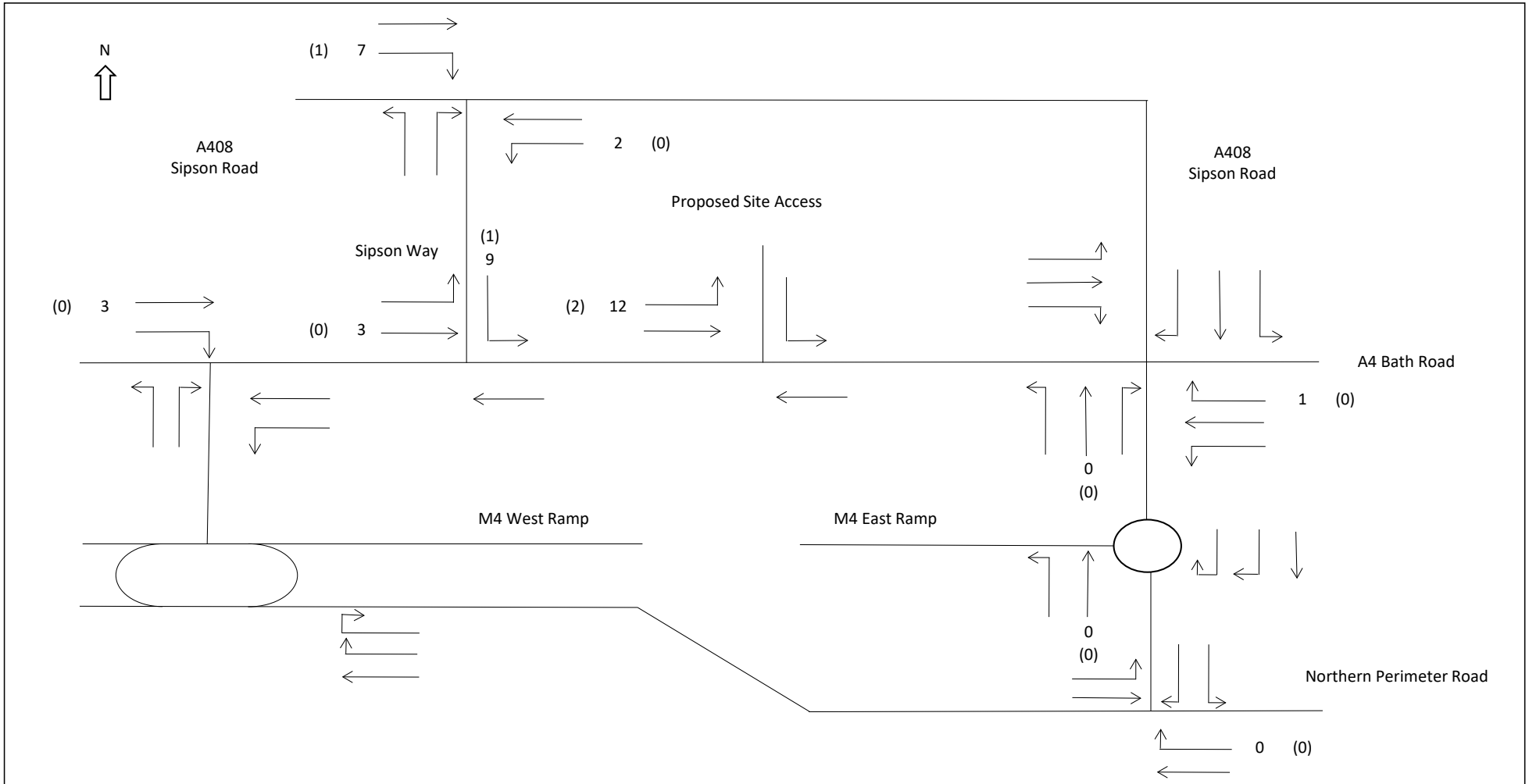
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 2 | 31 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B1c Net Total Vehicle Flows
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 8




Key:
232 Total Vehicles
(2) HGV's

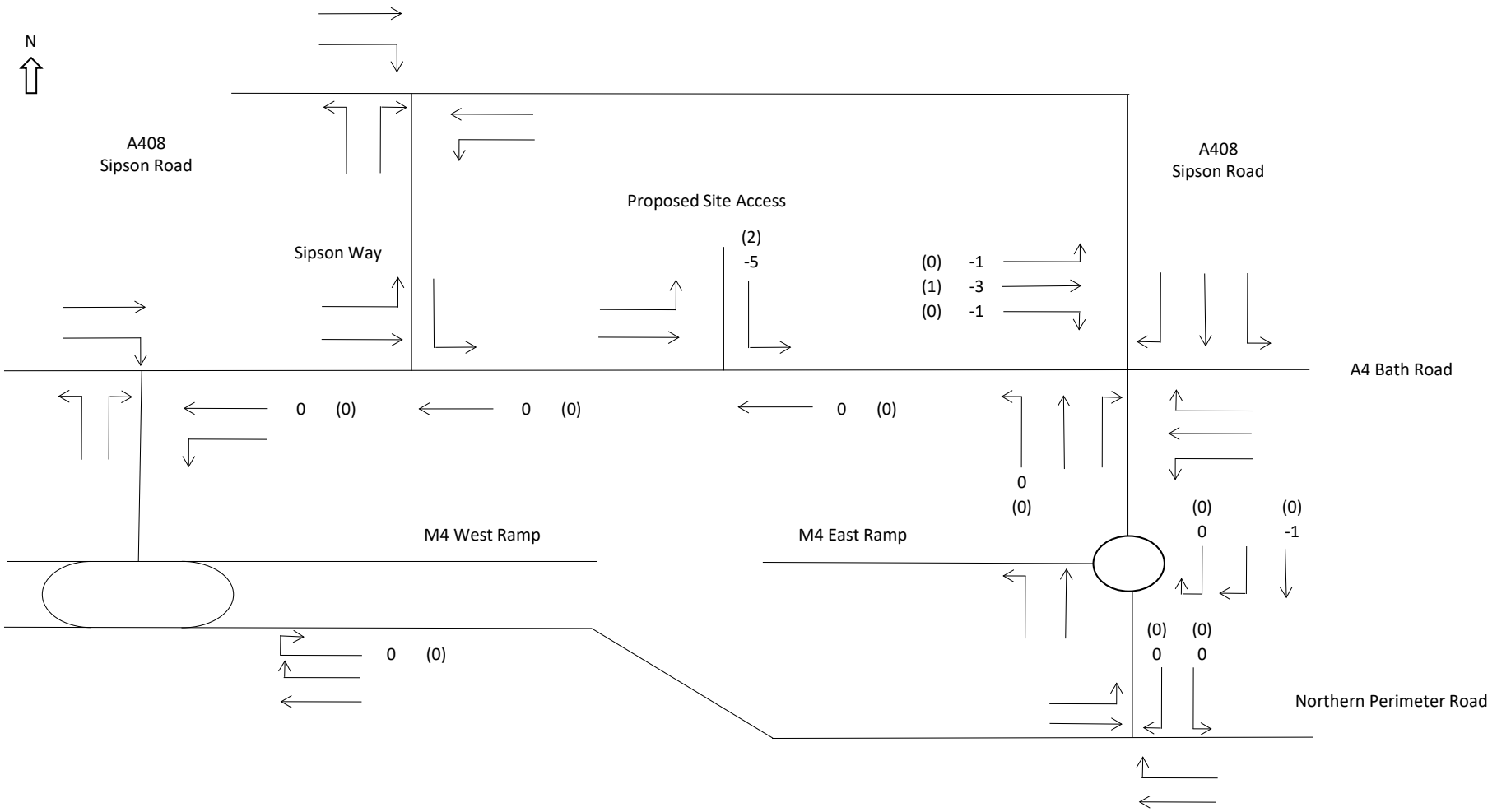
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 12 | -5 |
| HGV | 2 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B2 Net Arrivals
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 9




Key:
232 Total Vehicles
(2) HGV's

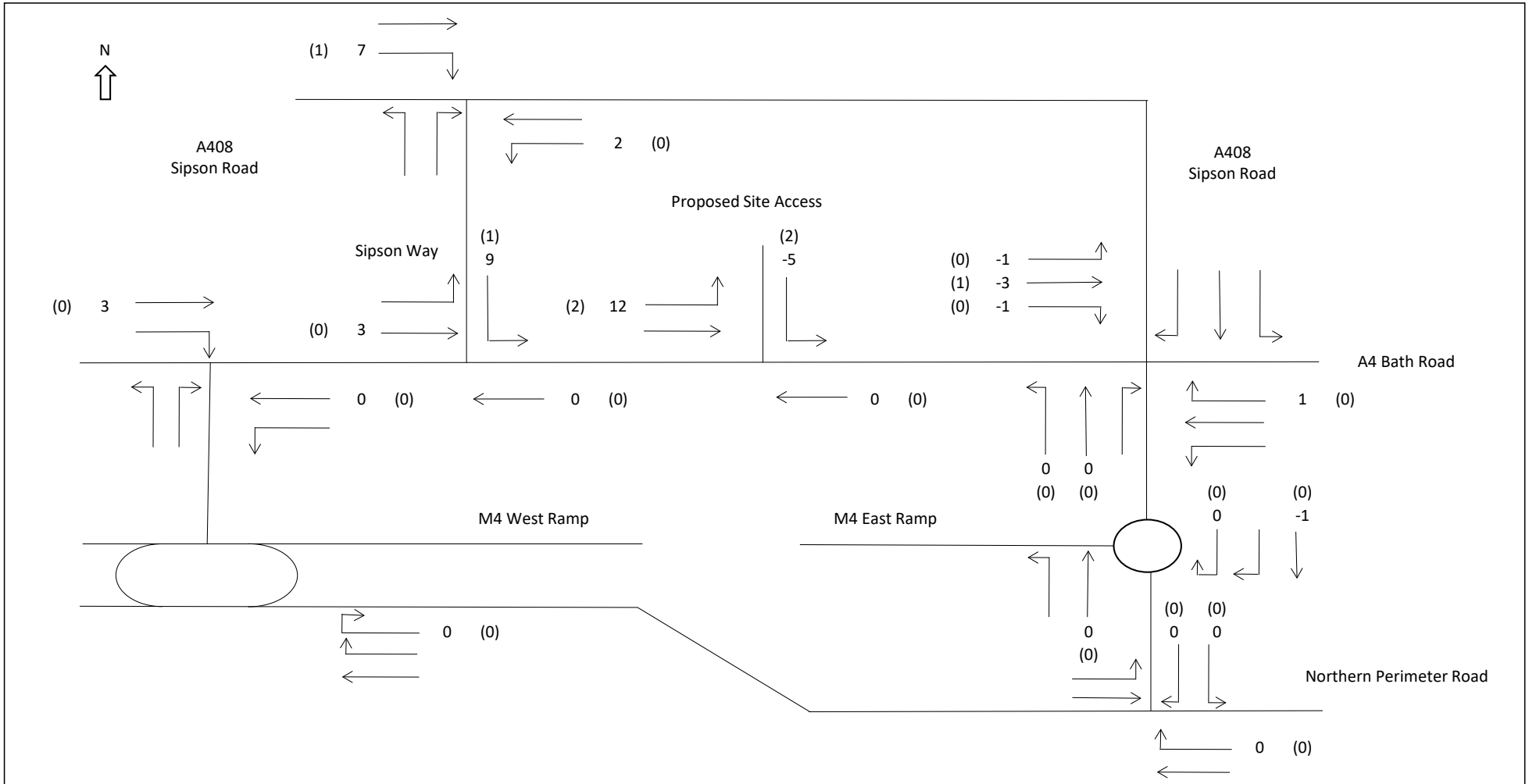
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 12 | -5 |
| HGV | 2 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B2 Net Departures
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 10




Key:
232 Total Vehicles
(2) HGV's

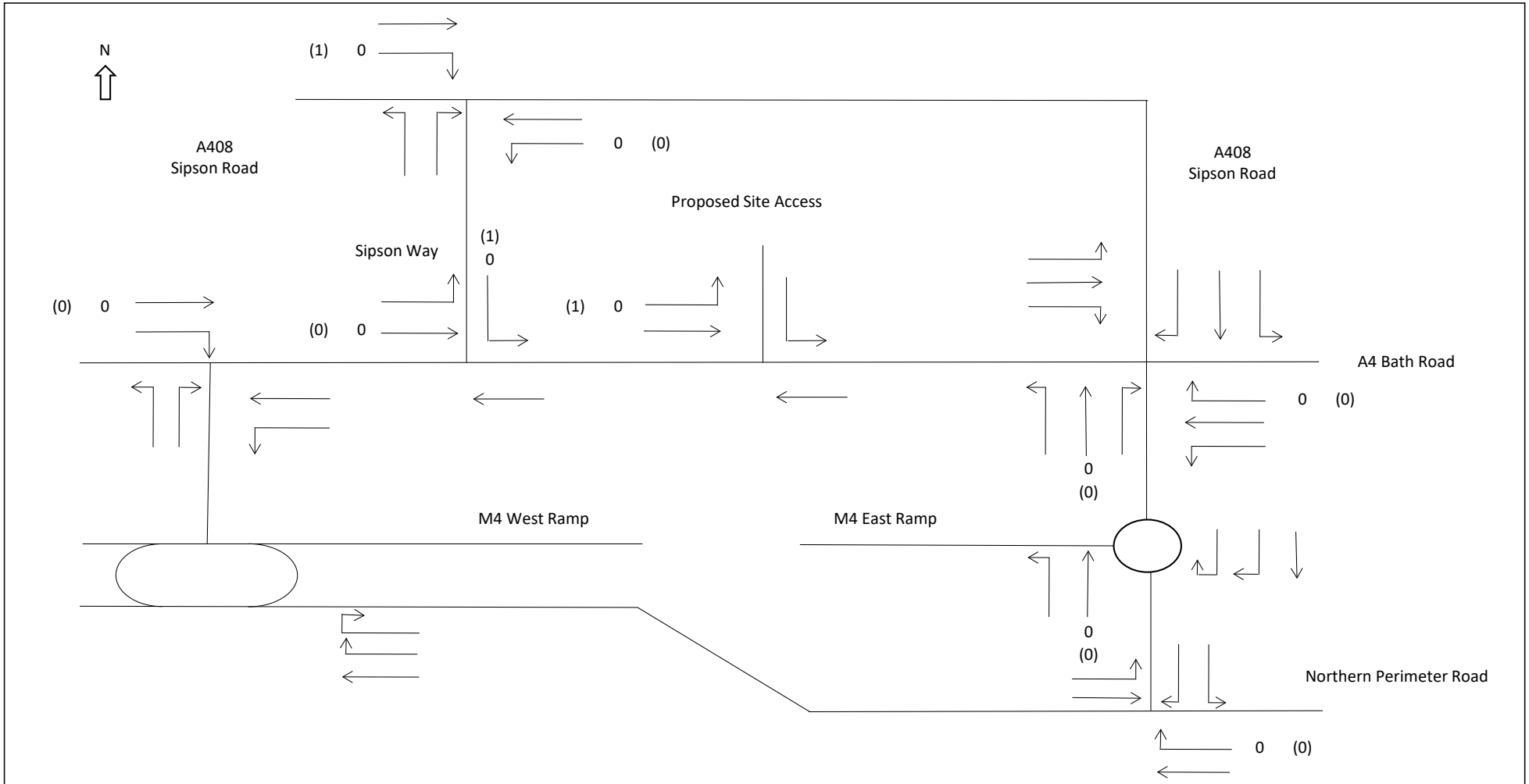
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 12 | -5 |
| HGV | 2 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B2 Net Total Vehicle Flows
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 11




Key:
232 Total Vehicles
(2) HGV's

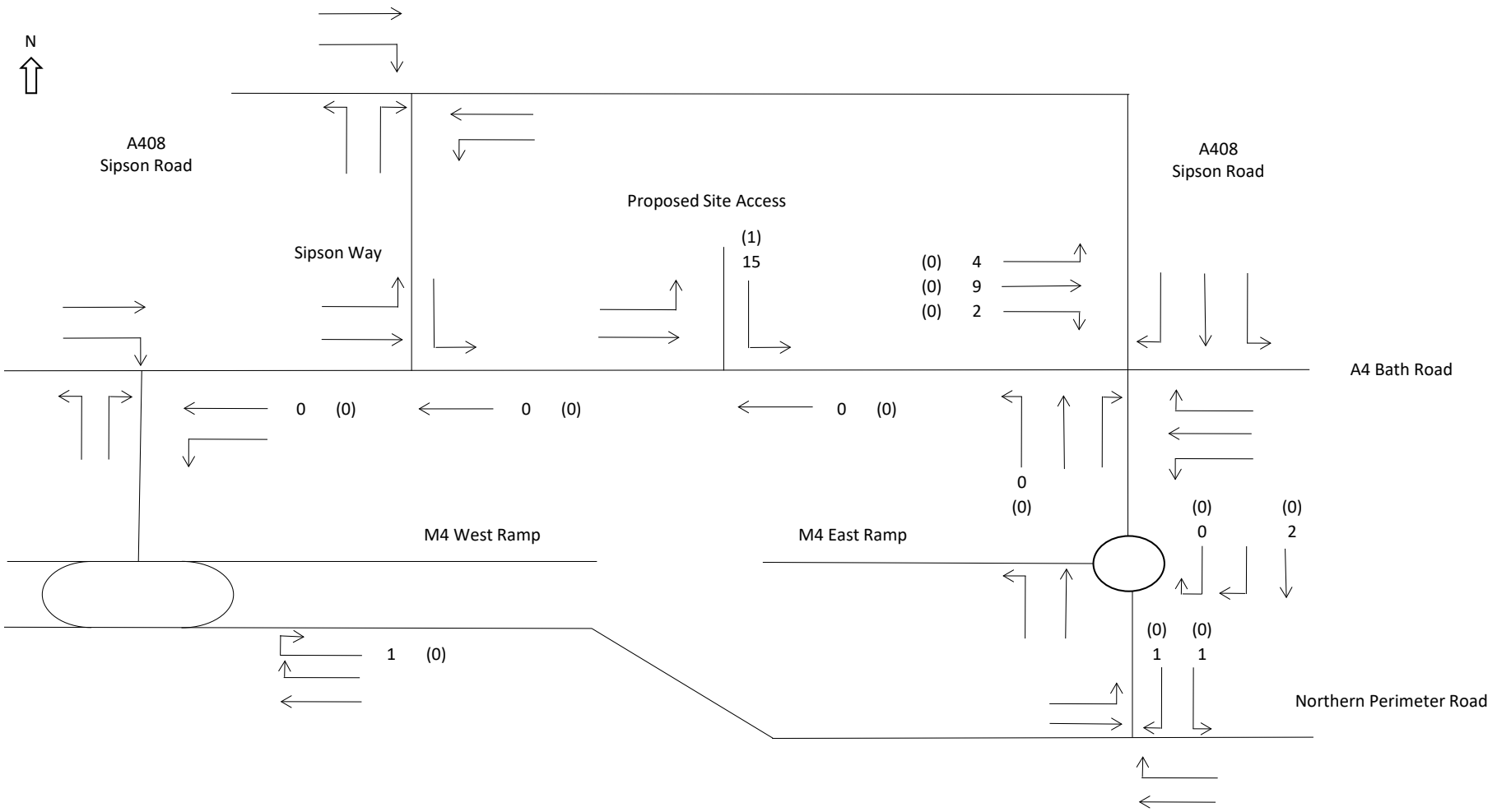
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 0 | 15 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B2 Net Arrivals
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 12




Key:
232 Total Vehicles
(2) HGV's

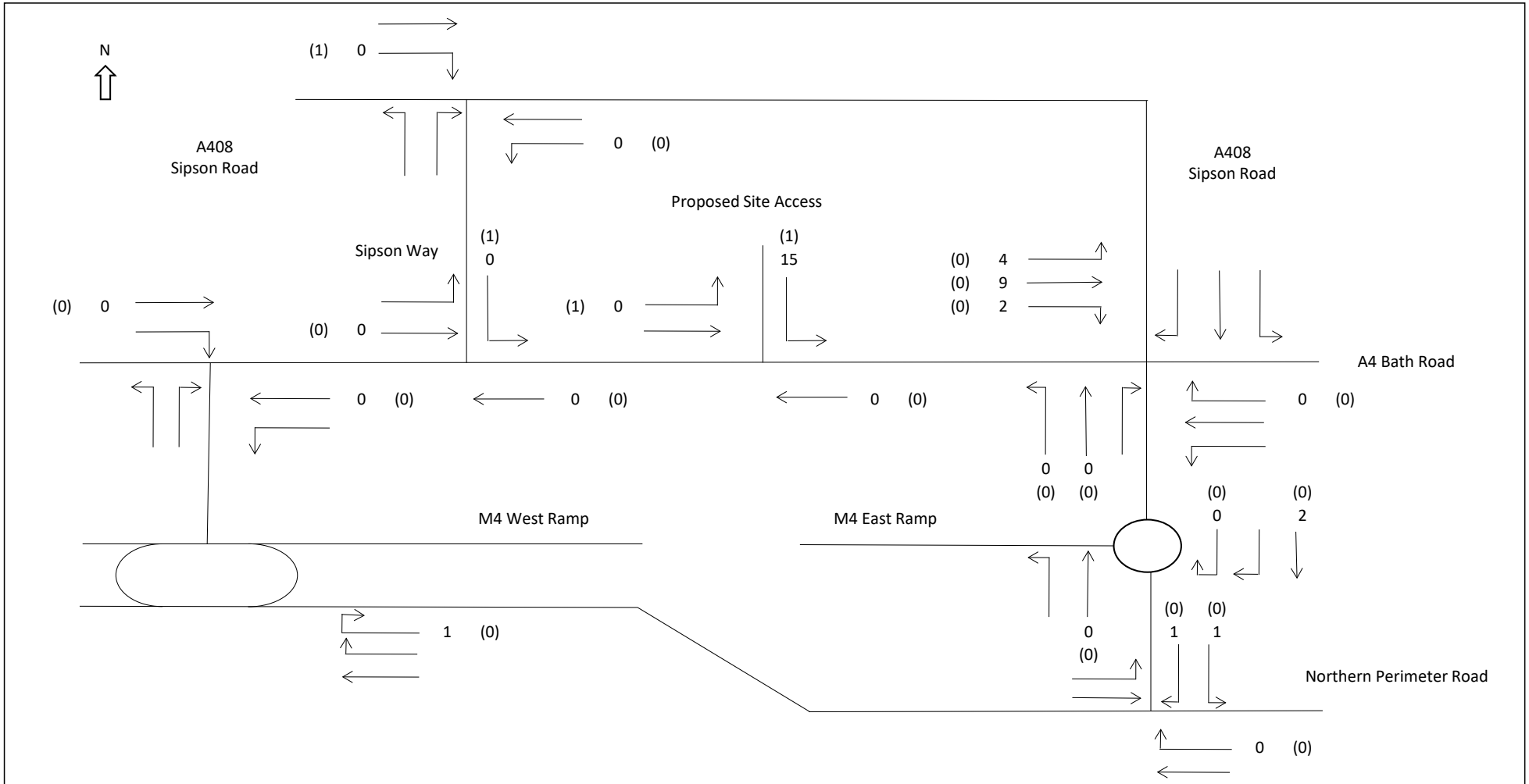
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 0 | 15 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B2 Net Departures
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 13




Key:
232 Total Vehicles
(2) HGV's

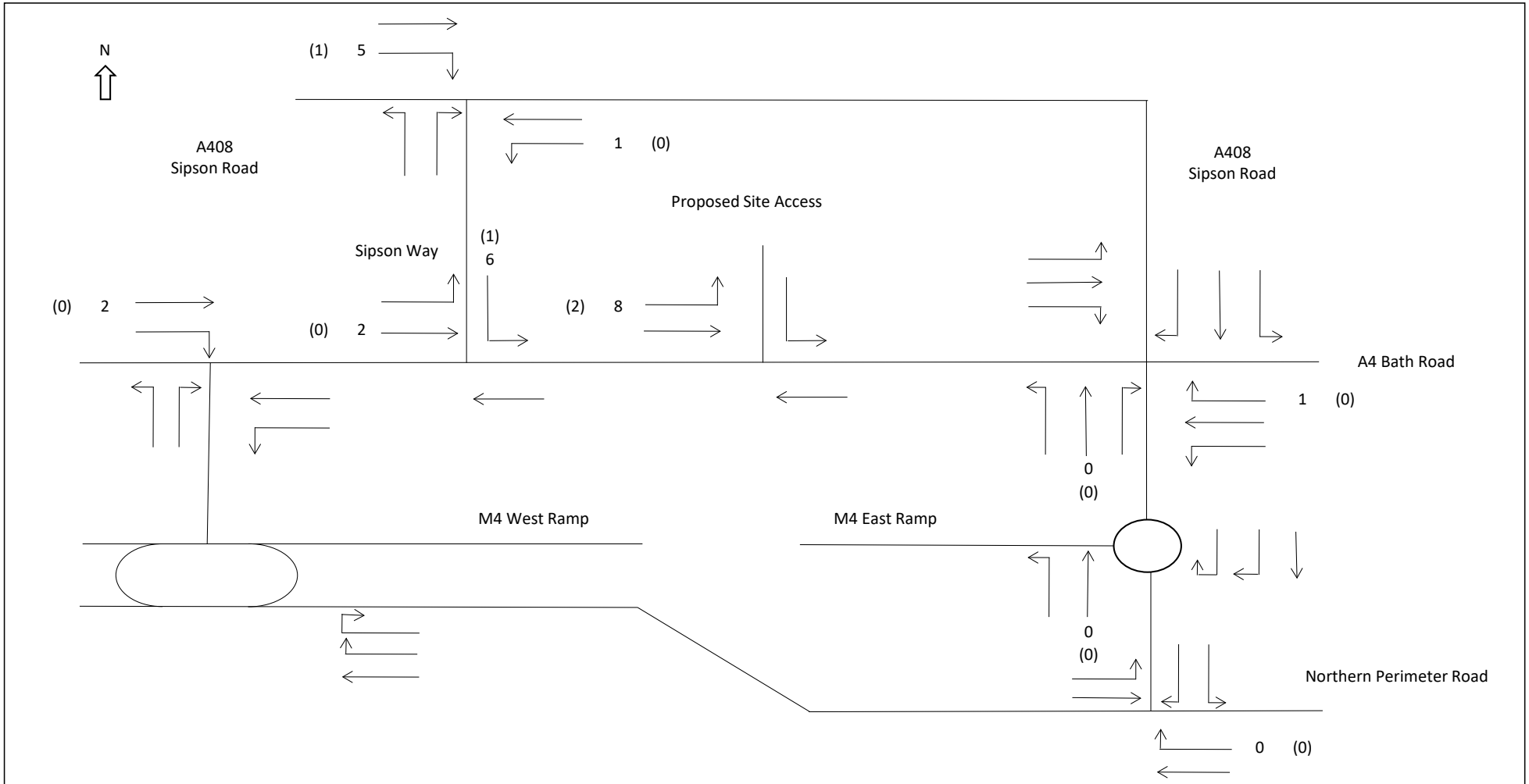
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 0 | 15 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B2 Net Total Vehicle Flows
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 14




Key:
232 Total Vehicles
(2) HGV's

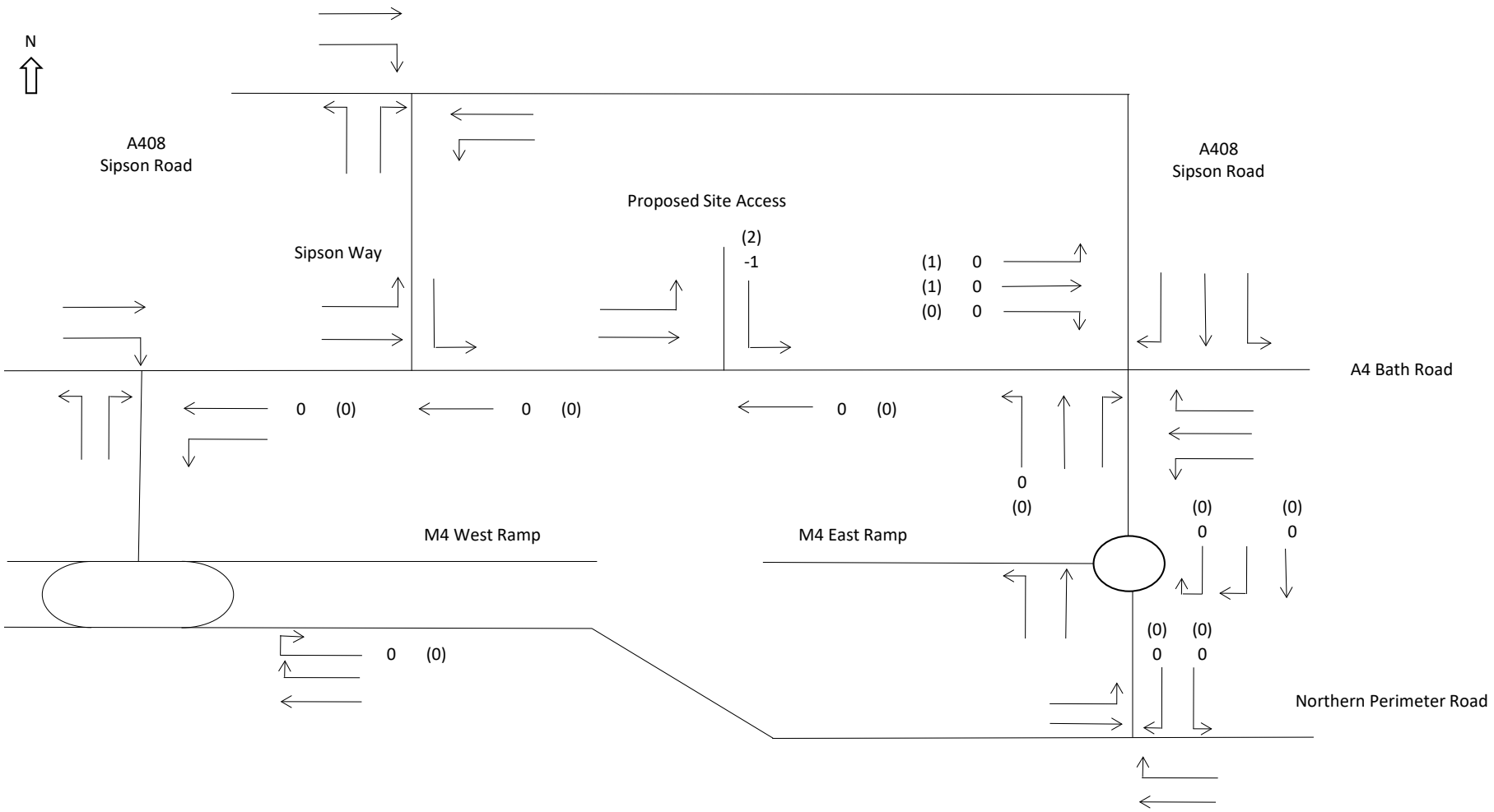
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 8 | -1 |
| HGV | 2 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B8 Net Arrivals
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 15




Key:
232 Total Vehicles
(2) HGV's

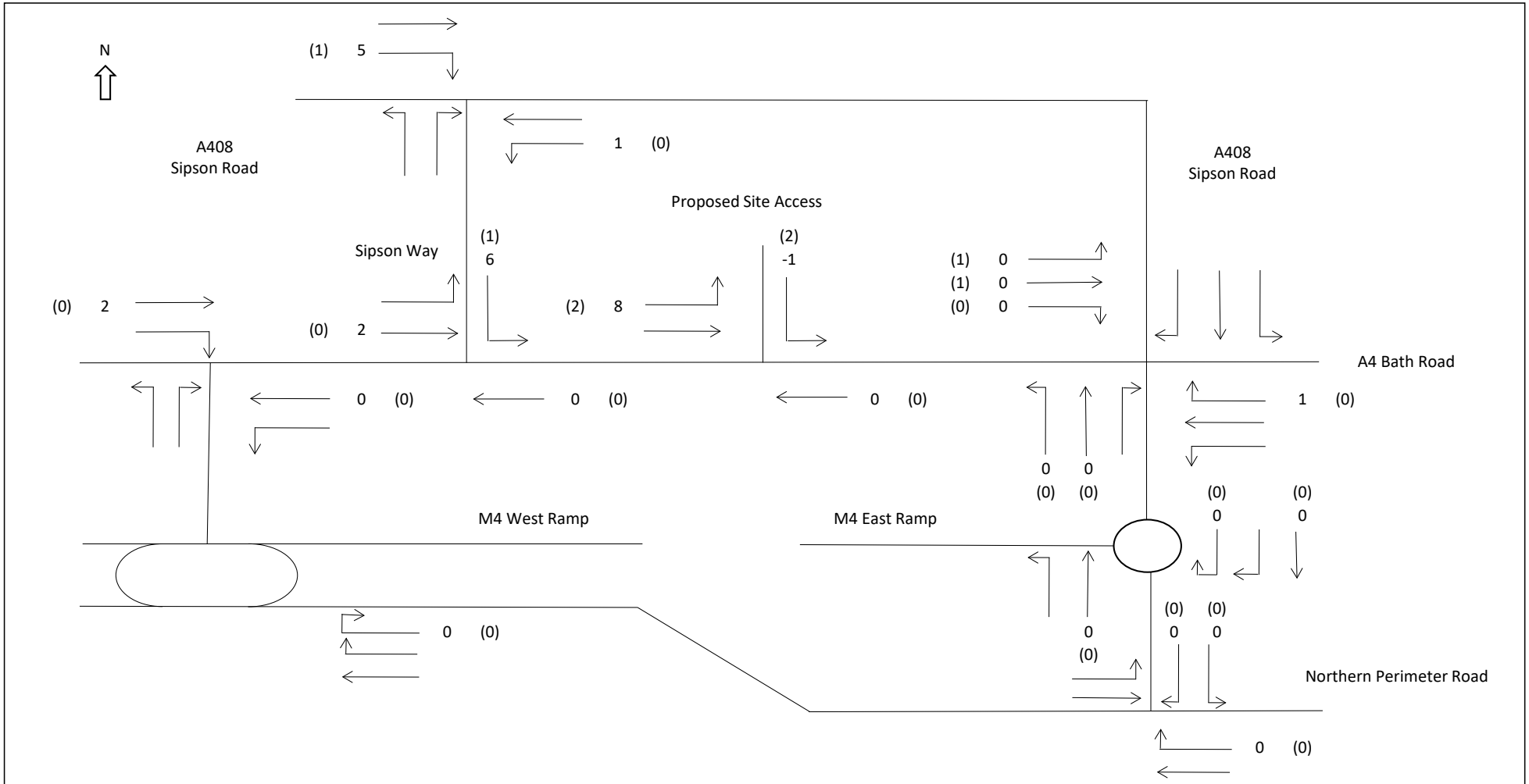
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 8 | -1 |
| HGV | 2 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B8 Net Departures
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 16




Key:
232 Total Vehicles
(2) HGV's

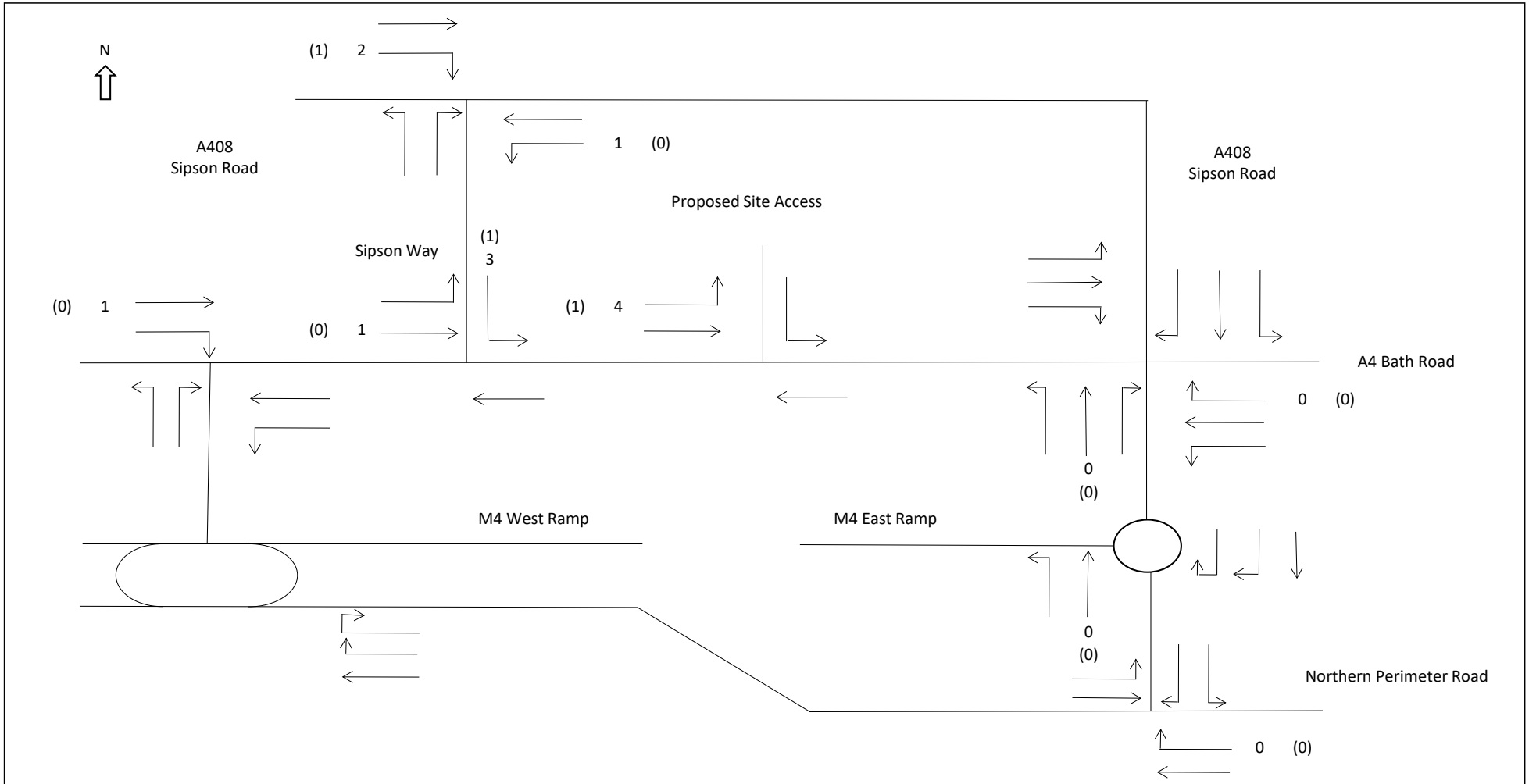
| | AM | |
|---|---|---|
| | Arr | Dep |
| Veh | 8 | -1 |
| HGV | 2 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B8 Net Total Vehicle Flows
AM Peak Hour (08:00-09:00)

Scale NTS Diagram 17




Key:
232 Total Vehicles
(2) HGV's

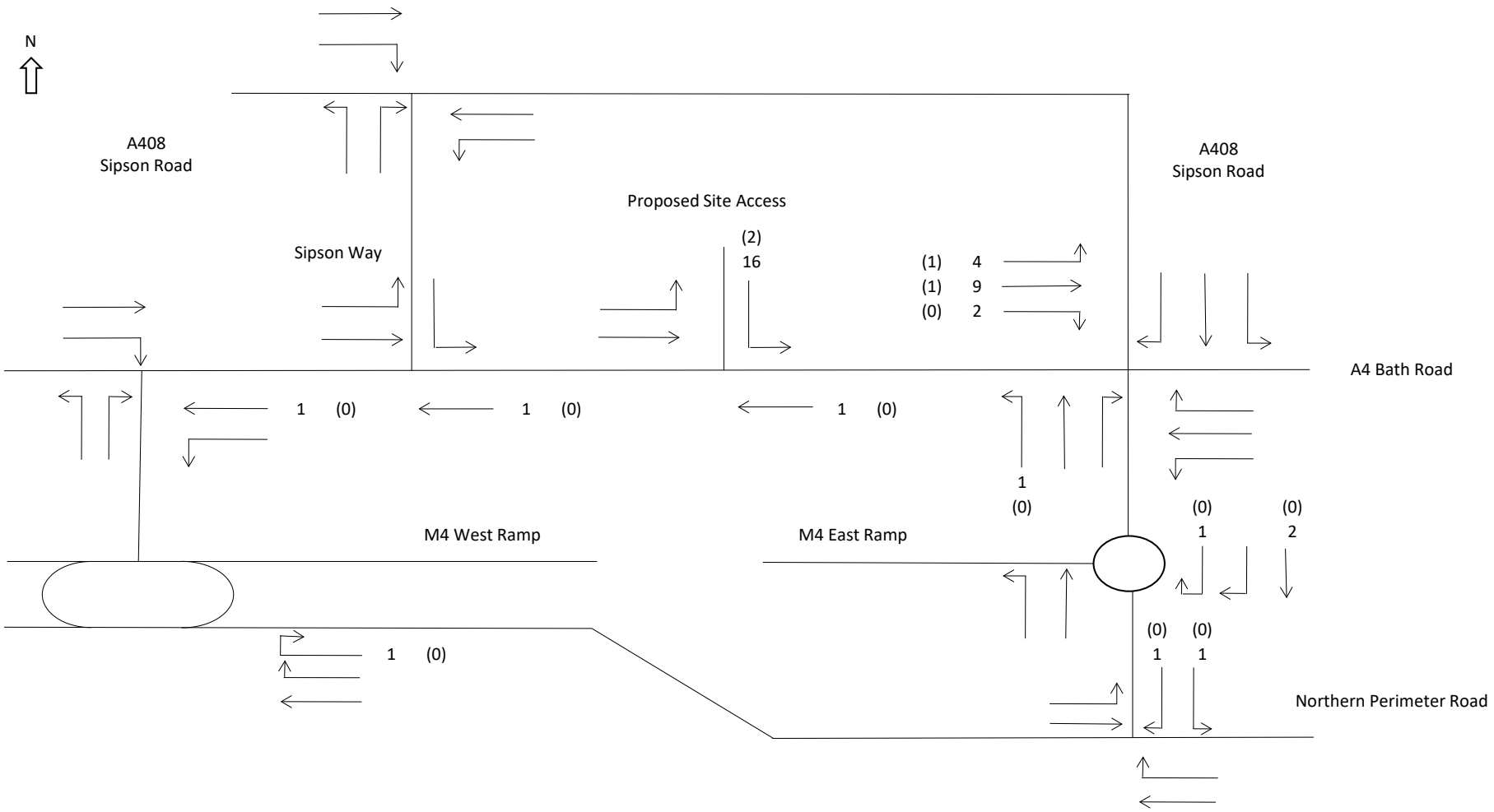
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 4 | 16 |
| HGV | 1 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B8 Net Arrivals
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 18




Key:
232 Total Vehicles
(2) HGV's

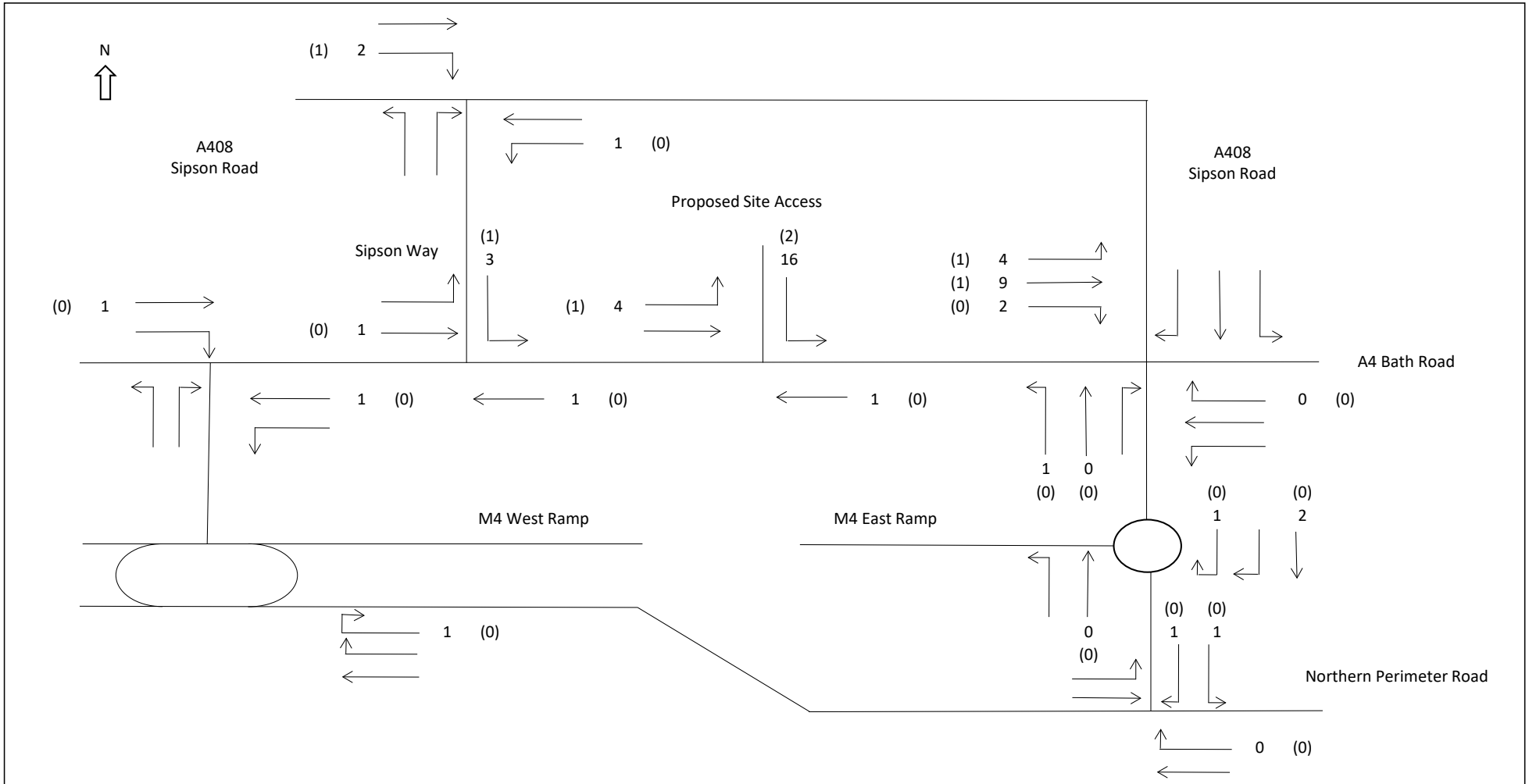
| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 4 | 16 |
| HGV | 1 | 2 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B8 Net Departures
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 19




Key:
232 Total Vehicles
(2) HGV's

| | PM | |
|---|---|---|
| | Arr | Dep |
| Veh | 4 | 16 |
| HGV | 1 | 1 |

mayer brown

Client: Heathrow NCP Property Limited
Location: A4 Bath Road, Heathrow

B8 Net Total Vehicle Flows
PM Peak Hour (17:00-18:00)

Scale NTS Diagram 20

# APPENDIX G: Junction Modelling

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462


For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk



**Filename:** A4-Site Access.j9
**Path:** H:_Planning Woking\Current Jobs\NCPHeathrow6.1\Analysis\Picady\A4-Site Access_Modelled as per TRL Instruction_Junctions 9 Report
**Report generation date:** 05/07/2022 16:54:23



## Summary of junction performance

| | AM | | | | | | PM | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Network Residual Capacity | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Network Residual Capacity |
| | 2022 Network Peak | | | | | | | | | | | |
| Stream B-AC | D1 | 0.0 | 8.08 | 0.02 | A | 223 % | D2 | 0.1 | 6.37 | 0.07 | A | 206 % |
| Stream C-AB | | 0.0 | 0.00 | 0.00 | A | [Stream B-AC] | | 0.0 | 0.00 | 0.00 | A | [Stream B-AC] |

*Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.*

## File summary

### File Description

| | |
|---|---|
| **Title** | |
| **Location** | |
| **Site number** | |
| **Date** | 05/07/2022 |
| **Version** | |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | |
| **Jobnumber** | |
| **Enumerator** | MAYERBROWN2K\kchaney |
| **Description** | |

## Units

| Distance units | Speed units | Traffic units input | Traffic units results | Flow units | Average delay units | Total delay units | Rate of delay units |
|---|---|---|---|---|---|---|---|
| m | kph | Veh | PCU | perHour | s | -Min | perMin |

## Analysis Options

| Calculate Queue Percentiles | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|
| | ✓ | Delay | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Description | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|---|
| D1 | 2022 Network Peak | AM | A4 Eastbound with bus lane excluded. | ONE HOUR | 07:45 | 09:15 | 15 |
| D2 | 2022 Network Peak | PM | A4 Eastbound with bus lane excluded. | ONE HOUR | 16:45 | 18:15 | 15 |

## Analysis Set Details

| ID | Network flow scaling factor (%) |
|---|---|
| A1 | 100.000 |

# 2022 Network Peak, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | NCP Heathrow Access | T-Junction | One-way from A to C | | 0.12 | A |

### Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|---|---|---|---|
| Left | Normal/unknown | 223 | Stream B-AC |

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | A4 Bath Road Eastbound | | Major |
| B | Site Access | | Minor |
| C | A4 Bath Road Westbound | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 6.35 | ✓ | 0.00 | | | ✓ | |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|
| B | One lane | 4.89 | 250 | 75 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|
| B-A | 712 | 0.092 | 0.232 | 0.146 | 0.332 |
| B-C | 798 | 0.087 | 0.219 | - | - |
| C-B | 574 | 0.158 | 0.158 | - | - |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Description | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|---|
| D1 | 2022 Network Peak | AM | A4 Eastbound with bus lane excluded. | ONE HOUR | 07:45 | 09:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|---|---|
| HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A | | ✓ | 643 | 100.000 |
| B | | ✓ | 9 | 100.000 |
| C | | ✓ | 0 | 100.000 |

# Origin-Destination Data

### Demand (Veh/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 44 | 599 |
| | B | 0 | 0 | 9 |
| | C | 0 | 0 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 9 | 30 |
| | B | 0 | 0 | 33 |
| | C | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.02 | 8.08 | 0.0 | A |
| C-AB | 0.00 | 0.00 | 0.0 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 07:45 - 08:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 9 | 667 | 0.014 | 9 | 0.0 | 7.280 | A |
| C-AB | 0 | 476 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 586 | | | 586 | | | |

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 11 | 641 | 0.017 | 11 | 0.0 | 7.595 | A |
| C-AB | 0 | 457 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 43 | | | 43 | | | |
| A-C | 700 | | | 700 | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 13 | 606 | 0.022 | 13 | 0.0 | 8.080 | A |
| C-AB | 0 | 431 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 53 | | | 53 | | | |
| A-C | 857 | | | 857 | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 13 | 606 | 0.022 | 13 | 0.0 | 8.080 | A |
| C-AB | 0 | 431 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 53 | | | 53 | | | |
| A-C | 857 | | | 857 | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 11 | 641 | 0.017 | 11 | 0.0 | 7.596 | A |
| C-AB | 0 | 457 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 43 | | | 43 | | | |
| A-C | 700 | | | 700 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 9 | 667 | 0.014 | 9 | 0.0 | 7.283 | A |
| C-AB | 0 | 476 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 586 | | | 586 | | | |

# 2022 Network Peak, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | NCP Heathrow Access | T-Junction | One-way from A to C | | 0.29 | A |

### Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|---|---|---|---|
| Left | Normal/unknown | 206 | Stream B-AC |

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Description | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|---|
| D2 | 2022 Network Peak | PM | A4 Eastbound with bus lane excluded. | ONE HOUR | 16:45 | 18:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|---|---|
| HV Percentages | 2.00 |

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A | | ✓ | 637 | 100.000 |
| B | | ✓ | 37 | 100.000 |
| C | | ✓ | 0 | 100.000 |

## Origin-Destination Data

### Demand (Veh/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 6 | 631 |
| | B | 0 | 0 | 37 |
| | C | 0 | 0 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 17 | 22 |
| | B | 0 | 0 | 1 |
| | C | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.07 | 6.37 | 0.1 | A |
| C-AB | 0.00 | 0.00 | 0.0 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 16:45 - 17:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 28 | 671 | 0.042 | 28 | 0.0 | 5.655 | A |
| C-AB | 0 | 482 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 5 | | | 5 | | | |
| A-C | 579 | | | 579 | | | |

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 34 | 646 | 0.052 | 34 | 0.1 | 5.936 | A |
| C-AB | 0 | 464 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 6 | | | 6 | | | |
| A-C | 692 | | | 692 | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 41 | 612 | 0.067 | 41 | 0.1 | 6.370 | A |
| C-AB | 0 | 439 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 8 | | | 8 | | | |
| A-C | 847 | | | 847 | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 41 | 612 | 0.067 | 41 | 0.1 | 6.370 | A |
| C-AB | 0 | 439 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 8 | | | 8 | | | |
| A-C | 847 | | | 847 | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 34 | 646 | 0.052 | 34 | 0.1 | 5.940 | A |
| C-AB | 0 | 464 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 6 | | | 6 | | | |
| A-C | 692 | | | 692 | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 28 | 671 | 0.042 | 28 | 0.0 | 5.660 | A |
| C-AB | 0 | 482 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-A | 0 | | | 0 | | | |
| A-B | 5 | | | 5 | | | |
| A-C | 579 | | | 579 | | | |